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INSTALLATION RESTORATION PROGRAM PHASE II-CONFIRMATION/QUANTIFICATION STAGE 1

FOR AIR FORCE PLANT PJKS WATERTON, COLORADO

VOLUME II

PREPARED BY:

ENGINEERING-SCIENCE

DESIGN • RESEARCH • PLANNING 1100 STOUT STREET, SUITE 1100 DENVER, COLORADO 80204 SELECTE DEC 1 9 1986

OCTOBER 1986

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PREPARED FOR:

HEADQUARTERS AERONAUTICAL SYSTEMS DIVISION FACILITIES MANAGEMENT DIVISION (ASD/PMDA) OHIO 45433-6503

AND

HEADQUARTERS AIR FORCE SYSTEMS COMMAND
COMMAND BIOENVIRONMENTAL ENGINEER (AFSC/SGPB)
ANDREWS AIR FORCE BASE, D.C. 20334-5000

UNITED STATES AIR FORCE
OCCUPATIONAL & ENVIRONMENTAL HEALTH
LABORATORY (USAFOEHL)
TECHNICAL SERVICES DIVISION (TS)
BROOKS AIR FORCE BASE, TEXAS 78235-5501

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Final Report For

Air Force Plant PJKS, Waterton, Colorado

Headquarters Aeronautical Systems Division
Facilities Management Division (ASD/PMDA)
Wright-Patterson AFB,
Ohio 45433-6503

And

Headquarters Air Force Systems Command Command Bioenvironmental Engineer (AFSC/SGPB) Andrews Air Force Base, D.C. 20334-5000

United States Air Force
Occupational & Environmental Health Laboratory (USAFOEHL)
Technical Services Division (TS)
Brooks Air Force Base, Texas 78235-5501

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APPENDIX I
LABORATORY ANALYSES FOR SAMPLING PROGRAM

Results of Hydrazine and NDMA for all Samples Analyzed

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California Analytical Laboratories, Inc. 2544 Industrial Boulevard • West Sacramento, CA 95691 • (916) 372-1393

January 29, 1986 Lab No's: 23165/23308/ 23343/23344/23357/ 23410/23470/23517/ 23532/23541 PJKS-AF-Denver Project

John Adamson
Engineering Science
57 Executive Park Four, Suite 590
Atlanta, GA 30329

Twenty-two water samples were received in one quart amber bottles and seventy soil/sediment samples were received in one quart mason jars to be analyzed for hydrazine and NDMA (nitrosodimethylamine).

CAL I.D. 23165-1 -2 -3 -4	SAMPLE I.D. 8-1-SW-1 8-2-SW-1 8-1-SD-1 8-2-SD-1	12/3/85 12/3/85 12/3/85 12/3/85	MATRIX WATER WATER SOIL SOIL	DATE RECEIVED 12/4/85 12/4/85 12/4/85 12/4/85
23308-1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -19	1-ES-3-SS-1 1-ES-3-SS-3 1-ES-3-SS-4 1-ES-3-SS-6 1-ES-3-SS-6 1-ES-4-SS-1 1-ES-4-SS-4 1-ES-4-SS-4 1-ES-4-SS-4 1-ES-4-SS-6 1-ES-5-SS-6 1-ES-5-SS-6 1-ES-5-SS-6	12/13/85 12/13/85 12/13/85 12/13/85 12/13/85 12/13/85 12/13/85 12/13/85 12/13/85 12/13/85 12/13/85 12/13/85 12/13/85 12/16/85 12/16/85 12/16/85 12/16/85 12/16/85	SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL	12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85
23343-1 -2 -3 -4 -5 -6 -7 -8 -9	8-3-SW-1 8-3-SD-1 8-4-SW-1 8-4-SD-1 8-5-SW-1 8-5-SW-1 8-6-SW-1 8-6-SD-1 8-5-SW-2	12/18/85 12/18/85 12/18/85 12/18/85 12/18/85 12/13/85 12/18/85 12/18/85	WATER SOIL WATER SOIL WATER SOIL WATER SOIL WATER	12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85

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CAL I.D. 23343-10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22	SAMPLE I.D. 8-5-SD-2 8-7-SW-1 8-8-SW-1 8-7-SD-1 8-8-SD-1 8-9-SD-1 8-10-SD-1 8-1-SD-2 8-2-SD-2 8-1-SW-2 8-2-SW-2 8-9-SW-1 8-10-SW-1	12/18/85 12/18/85 12/18/85 12/18/85 12/18/85 12/18/85 12/18/85 12/18/85 12/18/85 12/18/85 12/18/85 12/18/85 12/18/85	MATRIX SOIL WATER WATER SOIL SOIL SOIL SOIL SOIL SOIL WATER WATER WATER WATER WATER	DATE RECEIVED 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85
23344-1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11	ES-7(1')-SS-1 ES-7(3')-SS-2 ES-7(6')-SS-3 ES-7(10')-SS-4 ES-7(15')-SS-5 ES-7(20')-SS-6 ES-6(1')-SS-1 ES-6(3')-SS-2 ES-6(6')-SS-3 ES-6(10')-SS-4 ES-6(15')-SS-5 ES-6(20')-SS-6	12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85 12/17/85	SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL	12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85
23357-1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13	7-1-SD-1 7-2-SD-1 7-3-SD-1 ES-9-SS-1 ES-9-SS-2 ES-9-SS-3 ES-9-SS-4 ES-9-SS-5 7-4-SD-1 7-5-SD-1 7-6-SD-1 7-8-SD-1 7-9-SD-1	12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85 12/19/85	SOIL SOIL SOIL SOIL SOIL SOIL SOIL SOIL	12/20/85 12/20/85 12/20/85 12/20/85 12/20/85 12/20/85 12/20/85 12/20/85 12/20/85 12/20/85 12/20/85 12/20/85 12/20/85

Page 3.

CAL I.D.	SAMPLE I.D.		MATRIX	DATE RECEIVED
23410-1	ES-11-SS-1	12-30-85	SOIL	01/02/86
-2 -3	ES-11-SS-2	12-30-85	SOIL	01/02/86
- 3	ES-11-SS-3	12-30-85	SOIL	01/02/86
-4	ES-11-SS-4	12-30-85	SOIL	01/02/86
-5	ES-11-SS-5	12-30-85	SOIL	01/02/86
-6	ES-13-SS-1	12-31-85	SOIL .	01/02/86
-7	ES-13-SS-2	12-31-85	SOIL	01/02/86
-8	ES-13-SS-3	12-31-85	SOIL	01/02/86 01/02/86
-9 -10	ES-14-SS-1	12-31-85 12-31-85	SOIL SOIL	01/02/86
-10 -11	ES-14-SS-2 ES-14-SS-3	12-31-85	SOIL	01/02/86
-12 ⁻	ES-14-SS-4	12-31-85	SOIL	01/02/86
-13	ES-14-SS-5	12-31-85	SOIL	01/02/86
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		_		
23470-1	1-SW-1, SITE 1	01-09-86	WATER	01/10/86
-2	1-SD-1,SITE 1	01-09-86	SOIL	01/10/86
23517-1	MW-1,GW-1	01-14-86	WATER	01/15/86
-2 -2	MW-2,GW-1	01-14-86	WATER	01/15/86
	m - Z y Q n - 1	01-14-00	WALDI	01717700
23532-1	MW-8-10MW-8,GW-1	1 01-15-86	WATER	01/16/86
-2	MW-3-2-2MW-3,GW-		WATER	01/16/86
-3	MW-6-4-2MW-6,GW-	-1 01-15-86	WATER	01/16/86
			••	
07544 4	WU A A WU A OU A	. 04 46 06	ii A mをわ	04437/06
23541-1	MW-4,4-MW-4,GW-1		WATER	01/17/86
-2	MW-5,4-MW-5,GW-1		WATER WATER	01/17/86 01/17/86
- 3	MW-7,2-MW-7,GW-1	1 01-10-00	MATEL	01/11/00

Analysis of sample set 23165 was cancelled by Tim Shangraw on 12/23/86.

METHODS

A. NDMA (nitrosodimethylamine).

1. Water Samples. Sample aliquots were extracted, concentrated, and analyzed using EPA method 607.

2. Soil/sediment Samples. Sub-samples (10g) were extracted with 20 mL of a dichloromethane-methanol mixture (5:1,v:v) by shaking for one hour. A 10 mL aliquot (5g of soil) was removed, concentrated under nitrogen to about 2 mL, and adjusted to 5.0 mL in methanol. The final extracts were analyzed by GC-NPD as described in EPA Method 607.

Page 4.

B.Hydrazine

- 1. Water Samples. Sample aliquots (10 mL) were combined with 10 mL of 2.5% p-dimethylaminobenzaldehyde in a 25 mL volumetric flask. After 30 minutes the mixture was brought to 25 mL with glacial acetic acid. A 1:25 dilution in glacial acetic acid was then prepared and the absorbance at 480 nm read against a standard curve prepared using reference standards of hydrazine, treated in the same fashion. The method is based on NIOSH Method S237-1 (copy attached).
- 2. Soil/Sediment Samples. Sub-samples (10g) were extracted with 20 mL of 0.1 N hydrochloric acid by shaking for one hour. A 10 mL aliquot (5g of soil) was removed to a 25 mL volumetric flask and made slightly alkaline (pH 8-9) using 1 M aqueous sodium hydroxide. This solution was then treated with p-dimethylaminobenzaldehyde and processed as described above. The absorbance readings were again compared to a standard curve and the results calculated back to the original 10g soil sub-sample.

RESULTS

CAL I.D. 23308-1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17	NDMA (ppb) <250 ug/Kg	Hydrazine (ppm) <6 mg/Kg
	<250 ug/Kg <250 ug/Kg <250 ug/Kg <250 ug/Kg	<6 mg/Kg <6 mg/Kg <6 mg/Kg <6 mg/Kg

Page 5.		
CAL I.D. 23343-1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14 -15 -16 -17 -18 -19 -20 -21 -22	NDMA (ppb) <pre></pre>	Hydrazine (ppm) <1 mg/L <6 mg/Kg <1 mg/L <1 mg/L <1 mg/L <1 mg/Kg <1 mg/L <1 mg/L <1 mg/Kg <1 mg/L <1 mg/L
23344-1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12	<250 ug/Kg	<pre><6 mg/Kg <6 mg/Kg</pre>
23357-1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13 -14	<250 ug/Kg	<pre><6 mg/Kg <6 mg/Kg<!--6 mg/Kg</p--> <6 mg/Kg <6 mg/Kg<</pre>
	•	

Page	6.
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CAL I.D. 23410-1 -2 -3 -4 -5 -6 -7 -8 -9 -10 -11 -12 -13	NDMA (ppb) C250	Hydrazine (ppm) <pre></pre>
23470-1 50 -2 50	<pre><5 ug/L (no <250 ug/Kg</pre>	ote b) <1 mg/L <6 mg/Kg
23517 - 1	0.61 ug/L	<1 mg/L
- 2	0.23 ug/L	<1 mg/L
23532-1	5.2 ug/L	<1 mg/L
-2	0.28 ug/L	<1 mg/L
-3	<0.25 ug/L	<1 mg/L
23541-1	<0.25 ug/L	<1 mg/L
-2	<0.25 ug/L	<1 mg/L
-3	<0.25 ug/L	<1 mg/L

Notes: a Sample was broken at CAL Lab.

Extract final volume mistakenly taken to 5.0 mL, precluding the usual 0.25 ug/L detection limit.

Charles J. Soderquist, PhD Vice President

Don Fredrickson Staff Chemist Ben N. Buechler GC Lab Manager ds

TABLE I

QUALITY ASSURANCE RESULTS
HYDRAZINE

e U	A. Soil Samples.	sample result	duplicate result	spike added	spike found	percent
	CAL I.D. 23308-8 -17	(mg/Kg) <6 <6	(mg/Kg) <6 <6	(mg/Kg) 50 500	(mg/Kg) 0.85 176	<u>recovery</u> 1.7 35
	23343-16	< 6	<6	50	6.2	12
-	23344-7	< 6	< 6	500	193	. 39
e e	23357-4a -4b -4c	<6 <6 <6	<6 <6 <6	50 50 500	3.0 8.2 364	6.0 16 73
M A	23357-11	< 6	< 6	500	118	24

Average recovery at 50 ppm spike level = 8.9%

Average recovery at 500 ppm spike level = 43% ...

B. Water Samples. Spikes of water are redundant since the colorimetric method standard curve is actually a series of water spikes.

TABLE II

QUALITY ASSURANCE RESULTS

NDMA

A. Water Samples. CAl I.D. 23343 (tap water) 23470-1 23517 (tap water)	sample result (ug/L) <5	spike added (ug/L) 10 10	spike found (ug/L) 4.7 13	duplicate spike found (ug/L) 9.8	average percent recovery 73% 130%
B. Soil Samples. CAL I.D. 23308-1	sample result (ug/Kg) <250	spike added (ug/Kg) 10,000	spike found (ug/Kg) 5600	duplicate spike found (ug/Kg) 4600	average percent recovery 51%
23344-1	<250	10,000	3500	. 3400	35%
23357-4	<250	10,000	2600	2400	25%
23343-2	<250	10,000	5100	. 6500	58%
23410-1	<250	10,000	4200	4500	44%

Results for Site 1 8010, 8020, Metals and Inorganic Parameters

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

Page	1	of	<u> 2</u>
Repor	t _		

ES Job No56528	Lab Sample No. 12-55-1116
Client U.S. Air Force	Field Sample No. 1-Es-3, SS-1
Project PJKS (Denver	Date Collected 1.3-/6-85
Client No.	Date Received 12/17/85
Laboratory Supervisor Approval:	Date Analyzed
Sample Matrix	QC Report No
/_/ Water (ug/L)	Dilution Factor
<u>/X</u> / Soil (ug/g)	*Moisture
/ / Other	

-	Benzyl chloride	4	<10	<u> </u>	40.9	<u>, </u>
	bis(2-chloroethoxy) methane	12	C12		44.2	
Si	bis(2-chloroisopropyl) ether	25	125		42.2	•
7	Bromobenzene	8	<10		29.18	
-	Bromodichloromethane	2	<10		15.69	
K	Bromoform	4	<10		21.24	
	Bromomethane	24	<24		2.85	!
	Carbon tetrachloride	3	<10	ŀ	15.47	:
•	Chloroacetaldehyde	10	<10		11.6	
§	Chloral	10	<10		18.7	
N.	Chlorobenzene	5	<10		26.01	!
io -	Chloroethane	10	<10		4.51	
	Chloroform	1	<10		13.01	i
	1-Chlorohexane	2	<10		26.58	j i
	2-Chloroethyl vinyl ether	3	<10		19.49	! !
•	Chloromethane	2	<10		1.95	
	Chloromethyl methyl ether	20	LAC	•	9.37	
	Chlorotoluene	4	<10		37.9	!
	Dibromochloromethane	2	<10	<u> </u>	18.68	· •
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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

12-85-116

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Compound		Concentration		Retentio		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	-
Dibromomethane	1	<10		13.09	1 .	
1,2-Dichlorobenzene	3	<10	 	60.10	<u>i</u>	<u> </u>
1,3-Dichlorobenzene	6	<10	<u> </u>	42.90	<u>:</u>	<u> </u>
1,4-Dichlorobenzene	5	<10	!	37.28		:
Dichlorodifluoromethane	30	<30		3.54	!	!
1,1-Dichloroethane	1	<10		11.67	! !	<u>i</u>
1,2-Dichloroethane	1	<10		13.55	: 	<u> </u>
1,1-Dichloroethylene	3	<10		10.31	i	1
trans-1,2-Dichloroethylene	2	<10		12.35	1	İ
Dichloromethane	5	<10		7.50		!
1,2-Dichloropropane	1	<10		17.19	!	-
				17.24		1
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		1
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68	i i	
Trichloroethylene	2	<10		17.91	i 1	
Trichlorofluoromethane	1	<10	1.	8.58	į	1
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	4	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

Page	1	of	٢
Repor	t _		

ES Job No. <u>56528</u>	Lab Sample No. 12-85 - 1117
Client U.S. Air Force	Field Sample No. 1-ES-3, SS-2
Project PJKS (Denver	Date Collected /2-/6 85
Client No.	Date Received 12/17/85
Laboratory Supervisor Approval:	Date Analyzed 12/23/85
Johnny R Colombon Sample Matrix	QC Report No. PJKS -01
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/ / Other	

Compound	٠.	oncentrat	ion Retenti	on Time Notes
-	Det Lim	Column 1	Column 2 Column 1	Column 2
Benzyl chloride	4	<10	40.9	,
<pre>bis(2-chloroethoxy) methane</pre>	12	<12	- 44.2	
bis(2-chloroisopropyl) ether	25	425	42.2	;
Bromobenzene	8	<10	29.18	
Bromodichloromethane	2	<10	15.69	
Bromoform	4	<10	21.24	:
Bromomethane	24	∠ 24	2.85	
Carbon tetrachloride	3	<10	15.47	
Chloroacetaldehyde	10	<10	11.6	
Chloral	10	<10	18.7	· !
Chlorobenzene	5	<10	26.01	1
Chloroethane	10	<10	4.51	!
Chloroform	1	<10	13.01	
1-Chlorohexane	2	<10	26.58	1
2-Chloroethyl vinyl ether	3	<10	19.49	† :
Chloromethane	2	<10	1.95	
Chloromethyl methyl ether	20	Kau	9.37	
Chlorotoluene	4	<10	37.9	
Dibromochloromethane	2	<10	18.68	

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Co	ncentrati	.on	Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10	<u>:</u>	
1,3-Dichlorobenzene	6	<10		42.90	1	
1,4-Dichlorobenzene	5	<10_	<u> </u>	37.28	ı	1
Dichlorodifluoromethane	30	<3€		3.54	:	
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		! !
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35	ŀ	
Dichloromethane	5	<10		7.50		!
1,2-Dichloropropane	1	<10		17.19		
•				17.24	 	i
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		1
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		ŀ
1,1,2-Trichloroethane	1	<10		18.68	† !	
Trichloroethylene	2	<10		17.91	i	
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54	į	†
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

Page	1	of	<u> </u>
Repor	t		

ES Job No56528	Lab Sample No. 12 - 35 - 1115
Client U.S. Air Force	Field Sample No. /-ES-3 SS-3
Project PJKS (Denver	Date Collected 12-16-85
Client No.	Date Received 12/17/65
Laboratory Supervisor Approval:	Date Analyzed 12/24/85
Sample Matrix	QC Report No. 35/5 - 2:
/ / Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/ / Other	

Compound	C	oncentrat	ion	Retenti	on Time Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	•
bis(2-chloroethoxy) methane	12	<12	-	44.2	
bis(2-chloroisopropyl) ether	25	ر عع		42.2	i .
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	 	!	2.85	
Carbon tetrachloride	3	<10		15.47	<u> </u>
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	· · · · · · · · · · · · · · · · · · ·
Chloroethane	10	<10		4.51	
Chloroform	11	<10		13.01	
1-Chlorohexane	2	<10		26.58	1
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	120		9.37	
Chlorotoluene	4	<10	1	37.9	1
Dibromochloromethane	2	<10	<u> </u>	18.68	· .

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Co	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09	!	
1,2-Dichlorobenzene	3	<10		60.10]	i
1,3-Dichlorobenzene	6	<10		42.90	:	
1,4-Dichlorobenzene	5	<10		37.28	,	i
Dichlorodifluoromethane	- 30	<3°		3.54	!	!
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55	•	1
1,1-Dichloroethylene	3	<10		10.31	i	
trans-1,2-Dichloroethylene	2	<10		12.35	:	İ
Dichloromethane	5	<10		7.50	į	!
1,2-Dichloropropane	1	<10		17.19	i	ŧ
				17.24	†	
1,3-Dichloropropylene	6	<10		18.68		1
1,1,2,2-Tetrachloroethane	7	<10		23.47		1
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		ļ
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68	1	
Trichloroethylene	2	<10		17.91	i t	1
Trichlorofluoromethane	1	<10		8.58	!	
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	4	<10		3.54	!	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

Page _	1	of	_2
Report	: _		

ES Job No. <u>56528</u>	Lab Sample No. $13-35-1119$
Client U.S. Air Force	Field Sample No. 1-65-3. 51-4
Project PJKS (Denver	Date Collected /2-//:-35
Client No.	Date Received /2/17/85
Laboratory Supervisor Approval:	Date Analyzed 12/24/85
Johnny R Cidamon Sample Matrix:	QC Report No. PSKJ - 01
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/ / Other	

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		•
bis(2-chloroethoxy) methane	12	112		44.2		
bis(2-chloroisopropyl) ether	25	425		42.2		
Bromobenzene	8	<10		29.18		i
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	124		2.85		!
Carbon tetrachloride	_3	<10		15.47		i
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	11	<10		13.01		
1-Chlorohexane	2	<10	<u> </u>	26.58	1	,
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	420		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68	!	<u> </u>

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

12-85-1119

Compound	Concentration				Retention Time	
	Det Lim	Column 1	Column 2	Column 1	Column 2	1
Dibromomethane	1	<10		13.09	<u> </u>	İ
1,2-Dichlorobenzene	3	<10		60.10	: 	! !
1,3-Dichlorobenzene	. 6	<10	<u> </u>	42.90	:	
1,4-Dichlorobenzene	5	<10	<u> </u>	37.28	·	
Dichlorodifluoromethane	30	<3c	<u> </u>	3.54	!	!
1,1-Dichloroethane	1	<10		11.67	}	!
1,2-Dichloroethane	1	<10		13.55	! .	
1,1-Dichloroethylene	3	<10		10.31	<u> </u>	<u> </u>
trans-1,2-Dichloroethylene	2	<10		12.35		:
Dichloromethane	5	<10	<u> </u>	7.50	:	,
1,2-Dichloropropane	ı	<10	<u> </u>	17.19	1	1
				17.24	1	1
1,3-Dichloropropylene	6	<10		18.68	!	<u> </u>
1,1,2,2-Tetrachloroethane	7_	<10	<u> </u>	23.47	!	1
1,1,1,2-Tetrachloroethane	7	<10		21.04		į
Tetrachloroethylene	1	<10_		23.47	İ	<u> </u>
1,1,1-Trichloroethane	1	<10	<u> </u>	14.76	<u> </u>	
1,1,2-Trichloroethane	1 1	<10		18.68	<u> </u>	1
Trichloroethylene	2	<10		17.91	<u>!</u>	
Trichlorofluoromethane	1	<10		8.58	!	
Trichloropropane	2	<10		23.01	!	<u> </u>
Vinyl chloride	4_	<10		3.54		i
	!	İ		1		
		1			1	
	1	1	1			!
	!	<u> </u>	!	1		• ;
	<u>:</u>	!	,	!		i

^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No	25
Client U.S. Air Force	Field Sample No. /- = 5 - 3 - 55	5
Project PJKS (Denver	Date Collected /2-16-95	
Client No ·	Date Received 12/17/65	
Laboratory Supervisor Approval:	Date Analyzed 12/24/85	
Sample Matrix:	OC Report No. PJKS -3/	
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	Concentration			Retention 'me		Notes
_	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		•
<pre>bis(2-chloroethoxy) methane</pre>	12	112		44.2		
<pre>bis(2-chloroisopropyl) ether</pre>	25	Las		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		•
Bromomethane	24	124		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6	:	
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		1
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	८२०		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		•

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

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Compound	Concentration				Retention Time	
	Det Lim	Column 1	Column 2	Column 1	Column 2	İ
Dibromomethane	1	<10		13.09	<u> </u>	!
1,2-Dichlorobenzene	3	<10		60.10		1
1,3-Dichlorobenzene	6	<10		42.90		
1,4-Dichlorobenzene	5	<10	-	37.28	· ·	
Dichlorodifluoromethane	. 30	130	İ	3.54		
1,1-Dichloroethane	11	<10		11.67		
1,2-Dichloroethane	! 1	<10	<u> </u>	13.55	: :	;
1,1-Dichloroethylene	3	<10	<u> </u>	10.31	:	;
trans-1,2-Dichloroethylene	: 2	<10		12.35		(
Dichloromethane	5	<10	<u> </u>	7.50		
1,2-Dichloropropane	1 1	<10		17.19	:	
	•			17.24		1
1,3-Dichloropropylene	6	<10		18.68		<u> </u>
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04	1	
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	! 1	<10		14.76	:	
1,1,2-Trichloroethane	<u> </u>	<10	<u> </u>	18.68	<u>:</u>	İ
Trichloroethylene	2	<10	!	17.91		
Trichlorofluoromethane	1	<10		8.58		1
Trichloropropane	ⁱ 2	<10		23.01		1
Vinyl chloride	4	<10		3.54		
	1			1		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No56528	Lab Sample No. 12-33-1/21
Client U.S. Air Force	Field Sample No. 1-EJ-3 SJ-6
Project PJKS (Denver	Date Collected /2-16-35
Client No.	Date Received 12//7/85
Laboratory Supervisor Approval:	Date Analyzed 12/26/55
John R. Cidonson Sample Matrix	QC Report No. PJKS -0!
/_/ Water (ug/L)	Dilution Factor
<u>/X</u> / Soil (ug/g)	*Moisture
/ / Other	

Compound	c	oncentrat:	ion	Retenti	on Time	Notes
-	Det Lim	Column 1	Column 2	Column 1	Column 2	•
Benzyl chloride	4	<10	•	40.9	,	•
<pre>bis(2-chloroethoxy) methane</pre>	12	<12	-	44.2		:
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	. 8	<10		29.18		·
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	/24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7	Į.	
Chlorobenzene	. 5	<10		26.01	1	
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01	1	
1-Chlorohexane	2	<10		26.58	1	1
2-Chloroethyl vinyl ether	3	<10		19.49	1	_
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	(20		9.37		
Chlorotoluene	4	<10		37.9	!	1
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound		Concentration			Retention Time		
	Det Lim	Column 1	Column 2	Column 1	Column 2		
Dibromomethane	1	<10		13.09	1		
1,2-Dichlorobenzene	3	<10		60.10	•	1	
1,3-Dichlorobenzene	5	<10		42.90			
1,4-Dichlorobenzene	5	<10	!	37.28			
Dichlorodifluoromethane	, 30	230		3.54	:		
1,1-Dichloroethane	1	<10		11.67	:		
1,2-Dichloroethane	1	<10		13.55	!	;	
1,1-Dichloroethylene	3	<10	1	10.31			
trans-1,2-Dichloroethylene	2	<10		12.35			
Dichloromethane	5	<10	!	7.50	î	:	
1,2-Dichloropropane	1	<10		17.19		i	
	:		!	17.24	!	1	
1,3-Dichloropropylene	6	<10		18.68	!		
1,1,2,2-Tetrachloroethane	7	<10		23.47	1	†	
1,1,1,2-Tetrachloroethane	7	<10		21.04	1	1	
Tetrachloroethylene	<u> </u>	<10		23.47		Ì	
1,1,1-Trichloroethane	1	<10		14.76		!	
1,1,2-Trichloroethane	1	<10		18.68	•		
Trichloroethylene	2	<10		17.91		:	
Trichlorofluoromethane	1	<10		8.58	!	!	
Trichloropropane	2	<10		23.01		i	
Vinyl chloride	4	<10		3.54	<u>!</u>	İ	
	!	1			:		
		1	!	1	1	!	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No56528	Lab Sample No.
Client U.S. Air Force	Field Sample No. 1-FS-3 SS-7
Project PJKS (Denver	Date Collected 12-16 35
Client No.	Date Received
Laboratory Supervisor Approval:	Date Analyzed 12/20/85
Jehrne R. Cidamon Sample Matrix:	QC Report No. PJKS -01
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
<u>/</u> _/ Other	

Compound	С	oncentrat	tion	Retenti	on Time Note
	Det Lim	Column 1	Column	2 Column 1	Column 2
Benzyl chloride	4	<10		40.9	•
<pre>bis(2-chloroethoxy) methane</pre>	12	८12		44.2	
bis(2-chloroisopropyl) ether	25	425		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	1
Bromoform	4	<10		21.24	
Bromomethane	24	424		2.85	1
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10	1	4.51	:
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	•
2-Chloroethyl vinyl ether	3	<10	.	19.49	
Chlcromethane	2	<10		1.95	
Chloromethyl methyl ether	20	(20		9.37	İ
Chlorotoluene	4	<10	!	37.9	
Dibromochloromethane	2	<10	i	18.68	

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	C	oncentration	Retention Time	Notes
	Det Lim	Column 1 Column	2 Column 1 Column 2	
Dibromomethane	1	<10	13.09	
1,2-Dichlorobenzene	3	<10	60.10	
1,3-Dichlorobenzene	6	<10	42.90	i
1,4-Dichlorobenzene	5	<10	37.28	:
Dichlorodifluoromethane	30	30	3.54	1
1,1-Dichloroethane	1	<10	11.67	1
1,2-Dichloroethane	1	<10	13.55	1
1,1-Dichloroethylene	3	<10	10.31	
trans-1,2-Dichloroethylene	2	<10	12.35	i i
Dichloromethane	5	<10	7.50	1
1,2-Dichloropropane	1	<10	17.19	
			17.24	1
1,3-Dichloropropylene	6	<10	18.68	
1,1,2,2-Tetrachloroethane	7	<10	23.47	1
1,1,1,2-Tetrachloroethane	'7	<10	21.04	-
Tetrachloroethylene	1	<10	23.47	
1,1,1-Trichloroethane	1 1	<10	14.76	1
1,1,2-Trichloroethane	1	<10	18.68	!
Trichloroethylene	2	<10	17.91	-
Trichlorofluoromethane	1	<10	8.58	
Trichloropropane	2	<10	23.01	1
Vinyl chloride	4	<10	3.54	İ
	1		t :	1
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No56528	Lab Sample No. $12 - 85 - 1123$
Client U.S. Air Force	Field Sample No. 1-E1-7 51-1
ProjectPJKS (Denver	Date Collected /2-/6 85
Client No.	Date Received
Laboratory Supervisor Approval:	Date Analyzed .2/26/55
Sample Matrik:	OC Report No. 05/15-01
/_/ Water (ug/L)	Dilution Factor
<u>/X</u> / Soil (ug/g)	*Moisture
/_/ Other	· · · · · · · · · · · · · · · · · · ·

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ES Job No. 56528		I	Lab Sample N	io.	12-85-	3 211
Client U.S. Air Force	•	_	Field Sample	-		
Project PJKS (Denver			Date Collect		•	
Client No.			ate Receive			
Laboratory Supervisor Appr			ate Analyze			
Johnny R. Cida	mar <u>m</u>					
Sample Matrix:		_				
/ / Water (ug/L)			oilution Fac			
<u>/X</u> / Soil (ug/g)		#M	Moisture	 .	 	
/_/ Other						
	1 -			5 - 1 1 - 1		
Compound			tion 1 Column 2			
				· · · · · · · ·	1	
Benzyl chloride bis(2-chloroethoxy)	4	<10		40.9		•
methane	12_	<12		44.2		
bis(2-chloroisopropyl) ether	25	425		42.2	1	1
Bromobenzene	8	<10		29.18	<u> </u>	
Bromodichloromethane	$\frac{3}{2}$	<10		15.69	!	
Bromoform	4	<10		21.24		. 1
Bromomethane	24	∠ 24		2.85		
Carbon tetrachloride	3	<10		15.47	1	
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7	:	•
Chlorobenzene	5	<10		26.01	i	
Chloroethane	1 10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58	1	,
2-Chloroethyl vinyl ether	3	<10		19.49	i	
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	.20	حدي		9.37		
Chlorotoluene	4	<10		37.9		i
Dibromochloromethane	2	<10	İ	18.68		
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Compound		Concentration				Retention Time		
	Det	Lim	Column 1	Column 2	Column 1	Column 2		
Dibromomethane		1	<10		13.09			
1,2-Dichlorobenzene		3	<10		60.10	i :	!	
1,3-Dichlorobenzene		6	<10		42.90	1	<u> </u>	
1,4-Dichlorobenzene		5	<10		37.28	: 	-	
Dichlorodifluoromethane		30	30		3.54		<u> </u>	
1,1-Dichloroethane	<u> </u>	1	<10		11.67		!	
1,2-Dichloroethane		1	<10		13.55			
1,1-Dichloroethylene	<u> </u>	3	<10		10.31		<u> </u>	
trans-1,2-Dichloroethylene	<u> </u>	2	<10		12.35	!	<u> </u>	
Dichloromethane	:	5	<10		7.50	1	!	
1,2-Dichloropropane	<u>!</u> .	1	<10		17.19	!		
					17.24			
1,3-Dichloropropylene	i 	6	<10		18.68	<u> </u>	<u> </u>	
1,1,2,2-Tetrachloroethane	; 	7	<10		23.47	!	!	
1,1,1,2-Tetrachloroethane	!	7	<10		21.04		<u> </u>	
Tetrachloroethylene	<u>i</u>	1	<10_		23.47	<u>!</u>	1	
1,1,1-Trichloroethane	<u> </u>	1	<10	ļ	14.76	·	<u> </u>	
1,1,2-Trichloroethane	! 	1	<10	<u>i</u>	18.68	1		
Trichloroethylene	<u>:</u>	2	<10	<u> </u>	17.91	<u> </u>	1	
Trichlorofluoromethane	!	1	<10		8.58	!	1	
Trichloropropane		2	<10	<u> </u>	23.01	!		
Vinyl chloride	<u> </u>	4	<10		3.54	<u>i</u>		
	}				!	1	<u> </u>	
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	i		1	!	!	1	<u> </u>	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No. 12 - 85 - 1124
Client U.S. Air Force	Field Sample No. 1-ES-4, SS-2
Project PJKS (Denver	Date Collected /2-/6-35
Client No.	Date Received /2/,7/%5
Laboratory Supervisor Approval:	Date Analyzed 12/20185
Jehn R. Coloman Sample Matrix:	QC Report No. 25/13-31
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/ / Other	

Compound	Concentration			Retention Time Notes		
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9	•	
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2		
bis(2-chloroisopropyl) ether	`25	145		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	424		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6	:	
Chloral	10	<10		18.7	!	
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01	:	
1-Chlorohexane	2	<10		26.58	• .	
2-Chloroethyl vinyl ether	3	<10		19.49	+	
Chloromethane	2	<10		1.95	!	
Chloromethyl methyl ether	20	<10		9.37		
Chlorotoluene	4	<10		37.9	i	
Dibromochloromethane	2	<10		18.68		

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1 C	Column 2	
Dibromomethane	1	<10		13.09	······	
1,2-Dichlorobenzene	3	<10		60.10		ļ
1,3-Dichlorobenzene	6	<10	<u> </u>	42.90		<u> </u>
1,4-Dichlorobenzene	5	<10		37.28	**	1
Dichlorodifluoromethane	30	430	<u> </u>	3.54		
1,1-Dichloroethane	11	<10		11.67		1
1,2-Dichloroethane	11	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		ļ
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		!
				17.24		1
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	.7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		1
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		1
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		İ
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. 56528	Lab Sample No.
Client U.S. Air Force	Field Sample No. 1-E5-4 55-3
Project PJKS (Denver	Date Collected 12-16-85
Client No.	Date Received 12/17/8
Laboratory Supervisor Approval:	Date Analyzed 12/26/85
John R Calconson Sample Matrix:	OC Report No. 25/15-2/
/ / Water (ug/L)	Dilution Factor
/X_/ Soil (ug/g)	*Moisture
/ / Other	

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9	•	,
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	· <25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24	!	:
Bromomethane	24	(24		2.85	!	
Carbon tetrachloride	3	<10		15.47	!	
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7	1	_
Chlorobenzene	5	<10		26.01	İ	
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58))	•
2-Chloroethyl vinyl ether	3	<10		19.49	!	
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	420		9.37	ļ L	
Chlorotoluene	4	<10		37.9	1	i
Dibromochloromethane	· 2	<10	. 1	18.68		

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Compound		oncentrati	· · · · · · · · · · · · · · · · · · ·		Retention Time	
	Det Lim	Column 1	Column 2	Column 1	Column 2	i I
Dibromomethane	1	<10		13.09	1	!
1,2-Dichlorobenzene	3	<10		60.10		!
1,3-Dichlorobenzene	6	<10		42.90	: 	'
1,4-Dichlorobenzene	. 5	<10	<u> </u>	37.28		
Dichlorodifluoromethane	30	435		3.54	<u> </u>	
1,1-Dichloroethane	1	<10		11.67	1	!
1,2-Dichloroethane	1	<10		13.55	1	
1,1-Dichloroethylene	-3	<10		10.31	!	!
trans-1,2-Dichloroethylene	2	<10		12.35		i
Dichloromethane	5	<10		7.50	İ	
1,2-Dichloropropane	1	<10		17.19	•	<u> </u>
				17.24		:
1,3-Dichloropropylene	<u>6</u>	<10		18.68	! :	
1,1,2,2-Tetrachloroethane	7	<10		23.47		i
1,1,1,2-Tetrachloroethane	7	<10	<u> </u>	21.04	i	İ
Tetrachloroethylene	1	<10		23.47	!	!
1,1,1-Trichloroethane	1	<10		14.76	! :	<u> </u>
1,1,2-Trichloroethane	<u> </u>	<10	<u> </u>	18.68	i	İ
Trichloroethylene	2	<10		17.91	1	
Trichlorofluoromethane	1	<10		8.58	1	1
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	4	<10		3.54		!
		1		!	i	
	!				t.	1
		1			1	1
	:		!	1		i

^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

Page _	/_	of .	<u> 2</u>
Report	= _		

Client U.S. Air Force Field Sample No. 1-ES-4 SS-4 Project PJKS (Denver Date Collected /2-16-35 Client No. Date Received 12/17/85 Laboratory Supervisor Approval: Date Analyzed 12/265 OC Report No. PJKS -02 Sample Matrix: // Water (ug/L) Dilution Factor /X / Soil (ug/g) *Moisture	ES JOD NO. 56528	Lab Sample No. $\frac{12-35-1126}{12}$
Client No. Date Received 12/17/85 Laboratory Supervisor Approval: Date Analyzed 12/26/85 Och Port No. Port -02 Sample Matrix: // Water (ug/L) Dilution Factor // Soil (ug/g) *Moisture	Client U.S. Air Force	Field Sample No. 1-ES-4 SJ-4
Laboratory Supervisor Approval: Date Analyzed 12/26/55 OC Report No. PIKS -02 Sample Matrix: // Water (ug/L) Dilution Factor /X / Soil (ug/g) *Moisture	ProjectPJKS (Denver	Date Collected /2-jc-35
Sample Matrix: // Water (ug/L) // Soil (ug/g) OC Report No. PJKS -02 Dilution Factor *Moisture	Client No.	Date Received
/_/ Water (ug/L) Dilution Factor /X / Soil (ug/g) *Moisture	Laboratory Supervisor Approval:	Date Analyzed 12/26/55
/X / Soil (ug/g) *Moisture		QC Report No. PJKS -02
	/_/ Water (ug/L)	Dilution Factor
/_/ Other	/X / Soil (ug/g)	*Moisture
	/_/ Other	

Compound	Concentration Retent			Retenti	ention Time	
_	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		•
bis(2-chloroethoxy) methane	12	112	-	44.2		
bis(2-chloroisopropyl) ether	25	425		42.2		
Bromobenzene	8	<10		29.18		İ
Bromodichloromethane	2	<10		15.69		i
Bromoform	4	<10		21.24		
Bromomethane	24	24		2.85		
Carbon tetrachloride	3	<10		15.47		· !
Chloroacetaldehyde	. 10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	. 1	<10		13.01		
1-Chlorohexane	2	<10		26.58		1
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	(20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68	!	

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12-85-1126

Compound	Concentration				Retention Time	
	Det Lim	Column 1	Column	2 Column 1	Column 2	
Dibromomethane	1	<10		13.09		1
1,2-Dichlorobenzene	3	<10	<u> </u>	60.10	! 	1
1,3-Dichlorobenzene	6	<10		42.90	:	!
1,4-Dichlorobenzene	5	<10	<u> </u>	37.28		
Dichlorodifluoromethane	30	<30	<u> </u>	3.54		i
1,1-Dichloroethane	11	<10		11.67		:
1,2-Dichloroethane	1	<10		13.55	: !	;
1,1-Dichloroethylene	3	<10		10.31		!
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10	•	7.50		,
1,2-Dichloropropane	1	<10		17.19		
				17.24		; !
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		İ
1,1,1-Trichloroethane	1 1	<10		14.76		!
1,1,2-Trichloroethane	1	<10		18.68		1
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1 1	<10		8.58		
Trichloropropane	i 2	<10		23.01		!
Vinyl chloride	i 4	<10		3.54		i
	1		1	l ·		1
		i	1			
	i		i			1
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

Page	/	of	2
Repor	t _		

ES Job No. <u>56528</u>	Lab Sample No.
Client U.S. Air Force	Field Sample No. 1-55-4 55-5
Project PJKS (Denver	Date Collected
Client No.	Date Received 12/17/55
Laboratory Supervisor Approval:	Date Analyzed 12/26/55
John R. Colombian Sample Matrix:	QC Report No. PJK5-02
/ / Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/ / Other	

-	logenated	L RESULTS S d Volatile Method 8010	Organics)	Page / of 2 Report
	(first	of two pag		
ES Job No. <u>56528</u>				12-85-1127
Client U.S. Air Force				-ES-4 SS-5
Project PJKS (Denver				12-16 95
Client No.		_	Received //	
Laboratory Supervisor Appro	oval:	Date	Analyzed	12/26/35
Johnny R. C.da	~~~	ي	Report No. 25	1.5-02
Sample Matrix:				
/_/ Water (ug/L)			ution Factor	
/X / Soil (ug/g)		*Mois	sture	*
/_/ Other				
				
Compound				ion Time Notes
	Det Lim	COLUMN 1 C	Column 2 Column	COTUMN 2
Benzyl chloride	4	<10	40.9	i ·
<pre>bis(2-chloroethoxy) methane</pre>	12	<12	44.2	
bis(2-chloroisopropyl)			44.2	
ether	25	L 25	42.2	
Bromobenzene	-18	<10	29.18	;
Bromodichloromethane	2	<10	15.69	<u> </u>
Bromoform	4	<10	21.24	1 .
Bromomethane	24	₹7 #	2.85	<u> </u>
Carbon tetrachloride	. 3	<10	15.47	1
Chloroacetaldehyde	10	<10	11.6	-
Chloral	10	<10	18.7	
Chlorobenzene	5	<10	26.01	<u> </u>
Chloroethane	:10	<10	4.51	· · · · · · · · · · · · · · · · · · ·
Chloroform	1	<10	13.01	<u> </u>
1-Chlorohexane	2	<10	26.58	<u> </u>
2-Chloroethyl vinyl ether	3	<10	19.49	
Chloromethane	2	<10	1.95	
Chloromethyl methyl ether	. 20	120	9.37	
Chilorome any 1 me chiy 1 caner	. 4	<10	37.9	
Chlorotoluene		i .	1	1
	2	<10	18.68	
Chlorotoluene	2	-31	18.68	

12-35-1127

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Compound		oncentrat:		Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	1
Dibromomethane	1	<10	1	13.09	1	Ì
1,2-Dichlorobenzene	. 3	<10		60.10	:	!
1,3-Dichlorobenzene	6	<10	l !	42.90	:	<u>:</u>
1,4-Dichlorobenzene	5	<10	İ	37.28		
Dichlorodifluoromethane	30	30		3.54		!
1,1-Dichloroethane	. 1	<10	<u> </u>	11.67	i	:
1,2-Dichloroethane	11	<10		13.55	:	<u>;</u>
1,1-Dichloroethylene	3	<10		10.31	:	•
trans-1,2-Dichloroethylene	2	<10		12.35		!
Dichloromethane	5	<10	!	7.50	:	i
1,2-Dichloropropane	1	<10	i	17.19	:	
				17.24		
1,3-Dichloropropylene	6	<10	<u> </u>	18.68	<u> </u>	
1,1,2,2-Tetrachloroethane	7	<10		23.47	!	•
1,1,1,2-Tetrachloroethane	7	<10		21.04	İ	
Tetrachloroethylene	11	<10	!	23.47	<u>.i.</u>	<u> </u>
1,1,1-Trichloroethane	1	<10	<u> </u>	14.76	· 	
1,1,2-Trichloroethane	! 1	<10	<u>i</u>	18.68	i	<u> </u>
Trichloroethylene	2	<10		17.91	<u> </u>	
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10	<u> </u>	23.01	'	: !
Vinyl chloride	4	<10		3.54		ì
	!			1		i
		į	:	,		:
	:		i	!	· ———	1
			:			1
		:				1

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Report	_		

ES Job No. <u>56528</u>	Lab Sample No. $\frac{12-35-1128}{}$
Client U.S. Air Force	Field Sample No. 1-E5-4, SS-6
Project PJKS (Denver	Date Collected 12-16 85
Client No.	Date Received /2/17/85
Laboratory Supervisor Approval:	Date Analyzed 12/26/95
Johnne R adamsin Sample Matrix:	OC Report No. 35KS-02
/_/ Water (ug/L)	Dilution Factor
<pre>/X / Soil (ug/g)</pre>	*Moisture
/ / Other	

Compound	Concentration			Retenti	on Time Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	:4	<10		40.9	•
<pre>bis(2-chloroethoxy) methane</pre>	12	42		44.2	
<pre>bis(2-chloroisopropyl) ether</pre>	25	125		42.2	
Bromobenzene	8	<10		29.18	1
Bromodichloromethane	2	<10		15.69	
Bromoform	.4	<10		21.24	
Bromomethane	24	424		2.85	* · ·
Carbon tetrachloride	3	<10		15.47	į.
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	•
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	•
1-Chlorohexane	2	<10		26.58	•
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	!
Chloromethyl methyl ether	20	20		9.37	1
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10	1	18.68	!

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12-85-1128

Compound		oncentrati		Retention Time	Notes
	Det Lim	Column 1	Column 2	Column 1 Column 2	
Dibromomethane	1	<10		13.09	Ī
1,2-Dichlorobenzene	3	· <10		60.10	1
1,3-Dichlorobenzene	6	<10	!	42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	40		3.54	:
1,1-Dichloroethane	1	<10		11.67	!
1,2-Dichloroethane	1	<10		13.55	<u> </u>
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10	! !	12.35	!
Dichloromethane	5	<10	!	7.50	
1,2-Dichloropropane	1	<10		17.19	1
	•			17.24	1
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	1
Tetrachloroethylene	1	<10		23.47	İ
1,1,1-Trichloroethane	1	<10		14.76	1
1,1,2-Trichloroethane	1	<10		18.68	İ
Trichloroethylene	2	<10		17.91	i
Trichlorofluoromethane	11	<10		8.58	1
Trichloropropane	2	<10		23.01	
Vinyl chloride	. 4	<10		3.54	
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	I		<u> </u>		į
		1	!		1
		:			

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Repor	t_		

ES Job No56528	Lab Sample No. 12-85-/124
Client U.S. Air Force	Field Sample No. /-=5-5 SS-1
ProjectPJKS (Denver	Date Collected 12-16-95
Client No.	Date Received 12/17/65 ·
Laboratory Supervisor Approval:	Date Analyzed /2/27/85
John R Cdonsin	OC Report No. PJK5-32
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/_ / Other	

Compound	Concentration			Retent	ion Time Notes
	Det Lim	Column	1 Column 2	Column	Column 2
Benzyl chloride	4	<10		40.9	,
<pre>bis(2-chloroethoxy) methane</pre>	12	CI2		44.2	
bis(2-chloroisopropyl) ether	25	L 25	·	42.2	1
Bromobenzene	,8	<10	İ	29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	124		2.85	1
Carbon tetrachloride	3	<10		. 15.47	1
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	•
Chlorobenzene	- 5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	1
1-Chlorohexane	2	<10		26.58	1
2-Chloroethyl vinyl ether	3	<10	1	19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	40		9.37	
Chlorotoluene	4	<10	:	37.9	
Dibromochloromethane	2	<10	1	18.68	i i

12-85-1129

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Compound		oncentrat		Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09	!	
1,2-Dichlorobenzene	3	<10	İ	60.10	<u> </u>	!
1,3-Dichlorobenzene	6	<10		42.90	:	İ
1,4-Dichlorobenzene	. 5	<10	İ	37 • 28		•
Dichlorodifluoromethane	30	.30		3.54		!
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55	1	
1,1-Dichloroethylene	3	<10	ļ	10.31	!	
trans-1,2-Dichloroethylene	2	<10	!	12.35		-
Dichloromethane	5	<10	!	7.50		!
1,2-Dichloropropane	1	<10	-	17.19	:	-
				17.24		i
1,3-Dichloropropylene	6	<10		18.68		į
1,1,2,2-Tetrachloroethane	7	<10	ļ	23.47		-
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		-
1,1,1-Trichloroethane	1	<10		14.76	1	
1,1,2-Trichloroethane	1	<10		18.68	1	!
Trichloroethylene	2	<10		17.91	!	
Trichlorofluoromethane	1	<10		8.58	!	
Trichloropropane	2	<10		23.01	1	
Vinyl chloride	4	<10		3.54		
				1		
				!		
•				:		
		!		!		

^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Report			

ES Job No. <u>56528</u>	Lab Sample No. 12-85-1135
Client U.S. Air Force	Field Sample No. 1-ES-5, 55-2
Project PJKS (Denver	Date Collected /2-/6 45
Client No.	Date Received 12/17/85
Laboratory Supervisor Approval:	Date Analyzed 12/27/85
Johnny R adamson Sample Matrix:	QC Report No. 25/15-02
/ / Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/ / Other	

Compound	C	Concentration			n Time Notes
_	Det Lim	Column	1 Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	1
bis(2-chloroethoxy) methane	12	くに		44.2	1
bis(2-chloroisopropyl) ether	25	حکر		42.2	
Bromobenzene	ઇ	<10		29.18	'
Bromodichloromethane	2	<10		15.69	
Bromoform	. 4	<10		21.24	
Bromomethane	24	८ 24		2.85	
Carbon tetrachloride	. 3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	:
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	. 1
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	රා		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10	i	18.68	1

12-85-1135

Compound	Concentration				Retention Time	Notes
	Det	Lim	Column 1	Column 2	Column 1 Column 2	
Dibromomethane		1	<10	<u> </u>	13.09	
1,2-Dichlorobenzene	<u>.</u>	3	<10		60.10	
1,3-Dichlorobenzene		6	<10		42.90	
1,4-Dichlorobenzene	ļ	5	<10		37.28	
Dichlorodifluoromethane	3	30	30		3.54	
1,1-Dichloroethane	i	1	<10		11.67	İ
1,2-Dichloroethane	!	1	<10		13.55	<u> </u>
1,1-Dichloroethylene		3	<10	<u> </u>	10.31	
trans-1,2-Dichloroethylene	i	2	<10		12.35	
Dichloromethane		5	<10		7.50	:
1,2-Dichloropropane	<u> </u>	1	<10		17.19	
					17.24	
1,3-Dichloropropylene	! !	6	<10		18.68	1
1,1,2,2-Tetrachloroethane	<u> </u>	7	<10	<u> </u>	23.47	
1,1,1,2-Tetrachloroethane	1	7	<10	1	21.04	
Tetrachloroethylene	i	1	<10		23.47	
1,1,1-Trichloroethane	<u> </u>	1	<10		14.76	
1,1,2-Trichloroethane	<u>!</u> .	1	<10	<u> </u>	18.68	
Trichloroethylene	<u>:</u>	2	<10		17.91	
Trichlorofluoromethane	<u> </u>	1	<10		8.58	
Trichloropropane		2	<10		23.01	1
Vinyl chloride	<u> </u>	4	<10		3.54	
	!					
	!		<u> </u>			
	!		!		:	
	i		!	•	! .	

^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Report	_		

ES JOD NO. <u>56528</u>	Lab sample No.
Client U.S. Air Force	Field Sample No. 1-=5-5 51-3
Project PJKS (Denver	Date Collected 12-16-85
Client No.	Date Received
Laboratory Supervisor Approval:	Date Analyzed 12/27/85
John R. Colombia Sample Matrix:	OC Report No. PJKS - 32
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/ / Other	

Compound	С	oncentrat	ion	Retention Time		Notes
-	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9	j	!
<pre>bis(2-chloroethoxy) methane</pre>	12	(12		44.2		
<pre>bis(2-chloroisopropyl) ether</pre>	25	425		42.2		
Bromobenzene	8	<10		29.18		:
Bromodichloromethane	2	<10		15.69		1
Bromoform	4	<10		21.24	<u> </u>	
Bromomethane	24	Q4		2.85	1	1
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6	:	
Chloral	10	<10		18.7	<u>!</u>	
Chlorobenzene	5	<10	<u> </u>	26.01	<u>i</u>	
Chloroethane	10	<10		4.51	<u>.</u>	
Chloroform	1	<10		13.01	i i	
1-Chlorohexane	2	<10		26.58	<u> </u>	,
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	420		9.37	1	
Chlorotoluene	4	<10		37.9	!	1
Dibromochloromethane	2	<10		18.68		i

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

12-85-1131

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Compound		oncentrati		Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	İ
Dibromomethane	1	<10		13.09	1	
1,2-Dichlorobenzene	3	<10		60.10	<u> </u>	!
1,3-Dichlorobenzene	6	<10	 	42.90	:	1
1,4-Dichlorobenzene	5	<10		37.28	·	ţ i
Dichlorodifluoromethane	30	<i>(</i> 30	<u> </u>	3.54	<u> </u>	
1,1-Dichloroethane	1	<10		11.67	!	į
1,2-Dichloroethane	1	<10		13.55	<u>!</u>	1
1,1-Dichloroethylene	3	<10		10.31	1	!
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10	ļ	7.50		
1,2-Dichloropropane	1	<10		17.19		
,				17.24		1
1,3-Dichloropropylene	66	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10	<u> </u>	23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	11	<10		14.76	i	
1,1,2-Trichloroethane	<u> </u>	<10		18.68	1	
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		
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	!	!	1	:	:	
	i	1	•	!		

^{*} If % moisture is reported, results are presented on a dry-weight basis.

Page	1	of	2
Repor	t _		

ES Job No. 56528	Lab Sample No. $12-85-1/3\lambda$
Client U.S. Air Force	Field Sample No. 1-ES-5, CS-7
ProjectPJKS (Denver	Date Collected 12-16 85
Client No.	Date Received 12/17/85
Laboratory Supervisor Approval:	Date Analyzed /2/27/85
John R Cidanian Sample Matrix:	QC Report No. 95% -32
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/_/ Other	

8	<u> </u>			SUMMARY e Organic		Page / of Report
- 7€			Method 80 of two p			
		(_	_		
न्त	ES Job No. <u>56528</u>					12-55-113.
N	Client U.S. Air Force					ES-5 (1-9)
Š	Project PJKS (Denver		_			2-16.85
	Client No.					117/85
	Laboratory Supervisor Appr	oval:	Da	te Analyz	ed	12/27/85
	Sample Matrix:	C26-	<u>~</u> oc	Report No	o. <u>P</u> 3	「九 -32
N	/// Water (ug/L)		Di	lution Fa	ctor	
	<pre>/X / Soil (ug/g)</pre>		*Mo	isture		·
N	<u>/</u> / Other					
ca.						
	Compound					on Time No
Š		Det Lim	Column 1	Column 2	Column 1	Column 2
٠,	Benzyl chloride	4	<10		40.9	
<u></u>	bis(2-chloroethoxy)					
4	methane bis(2-chloroisopropyl)	12	1/12	1	44.2	1 ;
∿ i	ether	25	125		42.2	
Ş	Bromobenzene	8	<10		29.18	
	Bromodichloromethane	2	<10		15.69	1
P	Bromoform	4	<10		21.24	
·- •	Bromomethane	24	QH		2.85	!
<u> </u>	Carbon tetrachloride	3	<10		15.47	1
	Chloroacetaldehyde	10	<10		11.6	
3	Chloral	10	<10		18.7	
$\bar{\mathbb{R}}$	Chlorobenzene	5	<10		26.01	
	Chloroethane	10	<10		4.51	
• -	Chloroform	1	<10		13.01	
8		. 2	<10		26.58	1
22	1-Chlorohexane				19.49	
	1-Chlorohexane 2-Chloroethyl vinyl ether	3	<10	.1		
32		3 2	<10		1.95	•
Ž.	2-Chloroethyl vinyl ether	2	1		1.95	•
	2-Chloroethyl vinyl ether Chloromethane	2	<10			

12-85-1132

<u>.</u>

Compound		oncentrat			Retention Time		
	Det Lim	Column 1	Column	2 Column 1	Column 2	1	
Dibromomethane	1	<10		13.09		İ	
1,2-Dichlorobenzene	,3	<10	1 1	60.10	·	!	
1,3-Dichlorobenzene	6	<10	1	42.90		:	
1,4-Dichlorobenzene	5	<10		37.28			
Dichlorodifluoromethane	30	30	1	3.54		1	
1,1-Dichloroethane	1	<10		11.67	:	į	
1,2-Dichloroethane	1	<10	1	13.55	: !		
1,1-Dichloroethylene	3	<10	!	10.31	:	į.	
trans-1,2-Dichloroethylene	2	<10	ļ	12.35		1	
Dichloromethane	5	<10		7.50			
1,2-Dichloropropane	. 1	<10		17.19			
				17.24	!	!	
1,3-Dichloropropylene	6	<10		18.68		1	
1,1,2,2-Tetrachloroethane	7	<10		23.47	!		
1,1,1,2-Tetrachloroethane	7	<10		21.04		!	
Tetrachloroethylene	1	<10		23.47			
1,1,1-Trichloroethane	1	<10	1	14.76		!	
1,1,2-Trichloroethane	1	<10	i	18.68	l. '	1	
Trichloroethylene	2	<10		17.91		1	
Trichlcrofluoromethane	1	<10		8.58		1	
Trichloropropane	2	<10	<u> </u>	23.01		i	
Vinyl chloride	4	<10		3.54			
				†	:	1	
		}	1	;			
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	:	!				!	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No	12-85-1133
Client U.S. Air Force	Field Sample No.	1-ES-5, SS-5
Project PJKS (Denver	Date Collected	12-16-45
Client No.	Date Received	12/17/85
Laboratory Supervisor Approval:	Date Analyzed	12/27/55
Johnny R. Calamon Sample Matrix:	QC Report No.	PJK5-02
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	Concentration			Retention Time		Notes
1	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		1
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2		İ
<pre>bis(2-chloroisopropyl) ether</pre>	25	125		42.2		ļ
Bromobenzene	8	<10		29.18		ţ
Bromodichloromethane	2	<10		15.69		1
Bromoform	4	<10		21.24		1
Bromomethane	24	44		2.85		i
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6	1	
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01	i	
Chloroethane	10	<10		4.51	:	
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		1
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	120		9.37		
Chlorotoluene	4	<10		37.9	!	1
Dibromochloromethane	2	<10		18.68	•	†

Compound	C	oncentrat	ion	Retentio	Retention Time		
	Det Lim	Column 1	Column 2	Column 1	Column 2	;	
Dibromomethane	11	<10	İ	13.09	: :	<u> </u>	
1,2-Dichlorobenzene	3	<10		60.10	·	1	
1,3-Dichlorobenzene	6	<10	1	42.90		:	
1,4-Dichlorobenzene	5	<10	<u> </u>	37.28			
Dichlorodifluoromethane	30	<3 &		3.54	:	i	
1,1-Dichloroethane	1	<10		11.67		;	
1,2-Dichloroethane	1	<10	<u> </u>	13.55			
1,1-Dichloroethylene	3	<10	!	10.31	<u> </u>	!	
trans-1,2-Dichloroethylene	2	<10		12.35		!	
Dichloromethane	5	<10	<u> </u>	7.50			
1,2-Dichloropropane	1	<10	<u> </u>	17.19	:	1	
		İ		17.24		!	
1,3-Dichloropropylene	6	<10		18.68		<u> </u>	
1,1,2,2-Tetrachloroethane	7	<10		23.47			
1,1,1,2-Tetrachloroethane	7	<10	!	21.04	<u>i</u>		
Tetrachloroethylene	1	<10	1	23.47	<u>!</u>	<u>!</u>	
1,1,1-Trichloroethane	1	<10		14.76	<u>:</u>		
1,1,2-Trichloroethane	11	<10		18.68	•	!	
Trichloroethylene	2	<10		17.91			
Trichlorofluoromethane	1	<10	1	8.58	<u>!</u>		
Trichloropropane	2	<10		23.01	!		
Vinyl chloride	4	<10	1	3.54			
	,		İ	1			
			!	1	!		
		<u> </u>	1	!			
		!	·	:			
		<u>:</u>		:			

^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No. $\frac{12-85-1134}{}$
Client U.S. Air Force	Field Sample No. 1-ES-5, 55-6
Project PJKS (Denver	Date Collected /2-/6-95
Client No.	Date Received
Laboratory Supervisor Approval:	Date Analyzed 12/27/55
John R adamson Sample Matrix:	OC Report No. PJK1 - 52
/ / Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/ / Other	

Compound	Concentration			Retention Time No	
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	•
bis(2-chloroethoxy) methane	12	112		44.2	
bis(2-chloroisopropyl) ether	25	<15		42.2	:
Bromobenzene	8	<10		29.18	k .
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	₹3#		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	•
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	·20	ત્રં 0		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	;

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

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Compound		ncentrat		Retention Time		Notes
	Det Lim	Column 1	Column	2 Column 1	Column 2	
Dibromomethane	1	<10	<u> </u>	13.09	<u>:</u>	
1,2-Dichlorobenzene	3.	<10		60.10	·	!
1,3-Dichlorobenzene	6	<10		42.90	:	<u> </u>
1,4-Dichlorobenzene	5	<10	<u> </u>	37.28		
Dichlorodifluoromethane	30	∠3 0		3.54	:	i
1,1-Dichloroethane	11	<10		11.67	:	:
1,2-Dichloroethane	1	<10	<u> </u>	13.55	:	
1,1-Dichloroethylene	3	<10	!	10.31	1	!
trans-1,2-Dichloroethylene	2	<10		12.35	:	
Dichloromethane	5	<10	!	7.50	!	1
1,2-Dichloropropane	11	<10	1	17.19	:	!
			!	17.24	1	:
1,3-Dichloropropylene.	6	<10		18.68		<u> </u>
1,1,2,2-Tetrachloroethane	7	<10	1	23.47	İ	-
1,1,1,2-Tetrachloroethane	7	<10		21.04		!
Tetrachloroethylene	1	<10	1	23.47	!	:
1,1,1-Trichloroethane	11	<10		14.76		i
1,1,2-Trichloroethane	<u> </u>	<10		18.68	1	!
Trichloroethylene	2	<10		17.91	•	!
Trichlorofluoromethane	1	<10		8.58	!	ļ
Trichloropropane	2	<10	!	23.01		1
Vinyl chloride	4	<10		3.54	1	
	!		<u> </u>	!	·	
		<u>!</u>	<u> </u>		:	
	·	<u> </u>	!	!		-
	·	<u> </u>				;
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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/_/ Other	
/X / Soil (ug/g)	*Moisture
/_/ Water (ug/L)	Dilution Factor
Sample Matrix: 3	
John, Radamson Sample Matrix:	QC Report No. 25/13-02
Laboratory Supervisor Approval:	Date Analyzed 12/28/85
Client No.	Date Received 12/18/85
Project PJKS (Denver	Date Collected /2-/7-95
Client U.S. Air Force	Field Sample No. 1-ES-6, SS-1
ES Job No. <u>56528</u>	Lab Sample No. 12-85-1144

Compound	C	oncentrat:	ion	Retention Time		Notes
_	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9	1	,
<pre>bis(2-chloroethoxy) methane</pre>	12	<12	-	44.2	1	
bis(2-chloroisopropyl) ether	25	L 15		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69	i	
Bromoform	4	<10		21.24	i	
Bromomethane	24	124		2.85	<u>!</u>	<u>. </u>
Carbon tetrachloride	3	<10		15.47	•	· · · · · · · · · · · · · · · · · · ·
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7	:	
Chlorobenzene	5	<10		26.01	i	
Chloroethane	10	<10		4.51	:	
Chloroform	1	<10		13.01	I	
1-Chlorohexane	2	<10		26.58	i	1
2-Chloroethyl vinyl ether	3	<10		19.49	: :	
Chloromethane	2	<10		1.95	:	
Chloromethyl methyl ether	20	L 20		9.37	i	
Chlorotoluene	4	<10		37.9	!	
Dibromochloromethane	2	<10		18.68		

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12-55-1144

Compound		ncentrat		Retentio			
	Det Lim	Column 1	Column 2	Column 1	Column 2		
Dibromomethane	1	<10		13.09	<u>:</u>		
1,2-Dichlorobenzene	3	<10	<u> </u>	60.10	!	•	
1,3-Dichlorobenzene	6	<10		42.90		į .i	
1,4-Dichlorobenzene	5	<10		37.28		·	
Dichlorodifluoromethane	30	30		3.54	:	!	
1,1-Dichloroethane	1	<10		11.67	: :	:	
1,2-Dichloroethane	1	<10		13.55	!	:	
1,1-Dichloroethylene	3	<10		10.31	!	1	
trans-1,2-Dichloroethylene	2	<10	<u> </u> 	12.35		i	
Dichloromethane	5	<10	!	7.50	į	-	
1,2-Dichloropropane	1	<10	<u> </u>	17.19	:	!	
				17.24	1	1	
1,3-Dichloropropylene	6	<10		18.68		<u> </u>	
1,1,2,2-Tetrachloroethane	7	<10	<u> </u>	23.47	<u> </u>		
1,1,1,2-Tetrachloroethane	! 7	<10	ļ	21.04	į		
Tetrachloroethylene	1	<10	<u> </u>	23.47	!	!	
1,1,1-Trichloroethane	11	<10		14.76	!		
1,1,2-Trichloroethane	11	<10		18.68	<u> </u>	<u> </u>	
Trichloroethylene	2	<10		17.91	<u>;</u>		
Trichlorofluoromethane	1	<10		8.58	!		
Trichloropropane	2	<10		23.01	:	•	
Vinyl chloride	4	<10		3.54		i	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No.	
Client U.S. Air Force	Field Sample No. $\underline{/-E}$	5-6 55-2
Project PJKS (Denver	Date Collected	12-17-85
Client No.	Date Received	12-18-55
Laboratory Supervisor Approval:	Date Analyzed	12/28/85
John R Colombia	QC Report No. PJ	x5-03
/ / Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	96
/ / Other		

Compound	Concentration			Retent	Notes	
	Det Lim	Column 1	Column 2	Column	Column 2	
Benzyl chloride	4	<10		40.9	•	1
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2		
<pre>bis(2-chloroisopropyl) ether</pre>	25	L 25		42.2	ļ	
Bromobenzene	8	<10		29.18	1	
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24	1	
Bromomethane	24	224		2.85		
Carbon tetrachloride	3	<10		15.47	1	
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01	!	
Chloroethane	10	<10		4.51	:	
Chloroform	1	<10		13.01	i	
1-Chlorohexane	2	<10		26.58	į	
2-Chloroethyl vinyl ether	3	<10		19.49	š į	
Chloromethane	2	<10		1.95	1	
Chloromethyl methyl ether	20	420		9.37	i	
Chlorotoluene	4	<10		37.9	1	
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

12-85-1145

Compound	Co	ncentrat	ion	Retentio	on Time	Notes
	Det Lim	Column 1	Column	2 Column 1	Column 2	-
Dibromomethane	1	<10		13.09	<u> </u>	
1,2-Dichlorobenzene	3	<10		60.10	<u> </u>	!
1,3-Dichlorobenzene	6	<10		42.90	<u> </u>	<u> </u>
1,4-Dichlorobenzene	. 5	<10_	!	37.28		
Dichlorodifluoromethane	30	130		3.54	<u> </u>	!
1,1-Dichloroethane	11	<10		11.67	<u> </u>	!
1,2-Dichloroethane	11	<10	<u> </u>	13.55	<u> </u>	
1,1-Dichloroethylene	3	<10		10.31	<u> </u>	
trans-1,2-Dichloroethylene	2	<10		12.35	1	1
Dichloromethane	5	<10		7.50	•	
1,2-Dichloropropane	1	<10		17.19	!	1
				17.24		1
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7_	<10		23.47		
1,1,1,2-Tetrachloroethane	. 7	<10	<u> </u>	21.04	<u> </u>	
Tetrachloroethylene	1	<10		23.47	!	<u> </u>
1,1,1-Trichloroethane	1	<10	<u> </u>	14.76		
1,1,2-Trichloroethane	1	<10	<u> </u>	18.68	<u>!</u>	İ
Trichloroethylene	2	<10		17.91	!	
Trichlorofluoromethane	1	<10		8.58	<u> </u>	<u> </u>
Trichloropropane	2	<10	!	23.01	! 	
Vinyl chloride	4	<10	!	3.54		
	<u> </u>			!	1	
	:					!
	!	<u> </u>	i	:	:	
	: 	<u>!</u>				i

^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No. 12-85-1146	
Client U.S. Air Force	Field Sample No. 1-ES-6, 55-3	
Project PJKS (Denver	Date Collected 12-17-35	
Client No.	Date Received /2-/8-85	
Laboratory Supervisor Approval:	Date Analyzed	
Johnny R. Odamour Sample Matrix:	OC Report No. FTKS - C3	
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/ / Other		

	8	Engineering-Science A	logenated SW !	L RESULTS d Volatile Method 80 of two pa	e Organics 10	3	Page / Report _	of _
		ES Job No. 56528	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		b Sample 1	No.	(2 - x 5 -	114/
	~ ≀	Client U.S. Air Force		-				
1		Project PJKS (Denver		Field Sample No				
		Client No.	_ 		te Receive			
		Laboratory Supervisor Appro			te Analyze			
		Johnny R. Orda	_~~20~				•	
,	(- ,	Sample Matrix:						
•	\$	/_/ Water (ug/L)		Di	lution Fac	tor		
	<i>7</i> .	/X / Soil (ug/g)		*Mo:	isture			
		/_/ Other		·				
	r	Compound		oncentrat:			on Time	• •
•			Det Lim	Column 1	Column 2	Column 1	Column 2	:
	•	Benzyl chloride	4	<10		40.9		i
1	Í	<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2		ł
		bis(2-chloroisopropyl) ether	25	415		42.2		: !
		Bromobenzene	8	<10		29.18		į
		Bromodichloromethane	2	<10		15.69		1
		Bromoform	4	<10		21.24	<u> </u>	
	! ≥ "	Bromomethane	24	424		2.85	!	1
		Carbon tetrachloride	3	<10		15.47		
		Chloroacetaldehyde	10	<10		11.6	!	
	T	Chloral	10	<10		18.7	!	
	7 3	Chlorobenzene	5	<10		26.01	!	
	rs.	Chloroethane	10	<10		4.51		
	2	Chloroform	1	<10		13.01		
		1-Chlorohexane	2	<10		26.58	į t	,
	3	2-Chloroethyl vinyl ether	3	<10		19.49	1	
	7)	Chloromethane	2	<10		1.95		
		Chloromethyl methyl ether	20	<20		9.37	i	
		Chlorotoluene	4	<10		37.9	, ,	1
	3	Dibromochloromethane	2	<10	!	18.68		1
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12-55-1146

Compound			Retentio	Retention Time		
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	11	<10		13.09		
1,2-Dichlorobenzene	3	<10	1	60.10	1	!
1,3-Dichlorobenzene	6	<10	1	42.90	1	
1,4-Dichlorobenzene	5	<10		37.28		;
Dichlorodifluoromethane	30	130		3.54	1	•
1,1-Dichloroethane	1	<10	<u> </u>	11.67	<u> </u>	ļ
1,2-Dichloroethane	1	<10		13.55	<u> </u>	!
1,1-Dichloroethylene	3	<10		10.31	<u> </u>	!
trans-1,2-Dichloroethylene	2	<10		12.35	i	İ
Dichloromethane	5	<10		7.50	İ	į
1,2-Dichloropropane	1	<10	<u> </u>	17.19	1	
				17.24	!	(
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	77	<10	1-	23.47	1	
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47	!	-
1,1,1-Trichloroethane	1	<10		14.76	!	
1,1,2-Trichloroethane	1	<10	<u> </u>	18.68	!	
Trichloroethylene	2	<10	<u> </u>	17.91	i :	
Trichlorofluoromethane	11	<10	!	8.58	!	
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	4	<10		3.54		į
	!			!	1	
					1	
	1	<u> </u>		!	1	<u> </u>
	!		:	<u>:</u>	1	
	i 	!		!		1

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Report	

ES Job No. <u>56528</u>	Lab Sample No	12-85-1147
Client U.S. Air Force	Field Sample No.	1-ES-6,55.4
Project PJKS (Denver		12-17-85
Client No.	Date Received	1.2-19-85
Laboratory Supervisor Approval:	Date Analyzed	1/3/86
Johnny R. Colamo	QC Report No	PJKS-C-3
/ / Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	<u> </u>
/ / Other		

Compound	Concentration			Retenti	on Time Notes
	Det Lim Column 1 Column 2			Column 1	Column 2
Benzyl chloride	4	<10	+	40.9	
<pre>bis(2-chloroethoxy) methane</pre>	12	くは	-	44.2	
bis(2-chloroisopropyl) ether	25	L25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	:
Bromoform	4	<10		21.24	
Bromomethane	24	424		2.85	,
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	:
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	!
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	 		9.37	
Chlorotoluene	4	<10	·	37.9	
Dibromochloromethane	2	<10	1	18.68	

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

12-85-1147

Compound		oncentrati		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	İ
Dibromomethane	1	<10		13.09	!	
1,2-Dichlorobenzene	33	<10	! !	60.10	<u> </u>	<u> </u>
1,3-Dichlorobenzene	6	<10	<u>!</u>	42.90	; 	<u> </u>
1,4-Dichlorobenzene	5	<10	İ	37.28	· · · · · · · · · · · · · · · · · · ·	:
Dichlorodifluoromethane	30	<30		3.54	<u> </u>	
1,1-Dichloroethane	1	<10		11.67	<u> </u>	;
1,2-Dichloroethane	1	<10		13.55	;	! !
1,1-Dichloroethylene	3	<10		10.31	1	!
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		!
1,2-Dichloropropane	1	<10		17.19	t t	
				17.24	1	:
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10	<u> </u>	23.47	!	!
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10	<u> </u>	23.47		<u> </u>
1,1,1-Trichloroethane	11	<10	<u> </u>	14.76	<u>!</u>	
1,1,2-Trichloroethane	1	<10		18.68	i !	
Trichloroethylene	2	<10		17.91	İ	<u> </u>
Trichlorofluoromethane	1	<10	1	8.58	!	
Trichloropropane	2	<10		23.01	1	i
Vinyl chloride	4	<10		3.54		1
		<u> </u>		!	: !	İ
· · · · · · · · · · · · · · · · · · ·					i	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Report	_		

ES Job No. <u>56528</u>	Lab Sample No	12-85-1148
Client U.S. Air Force	Field Sample No.	1-ES-6, 55-5
Project PJKS (Denver	Date Collected	12-17-85
Client No.	· Date Received	12-18-55
Laboratory Supervisor Approval:	Date Analyzed	1/3/86
Sample Matrix	QC Report No.	PJKS-C3
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/_ / Other		

Compound	· c	oncentrat	ion	Retenti	on Time Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10	1	40.9	i
<pre>bis(2-chloroethoxy) methane</pre>	12	<12	-	44.2	
bis(2-chloroisopropyl) - ether	25	225		42.2	:
Bromobenzene	8	<10		29.18	1
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	i i
Bromomethane	24	124		2.85	1
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	11	<10		13.01	
1-Chlorohexane	2	<10		26.58	
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	/ 20	1	9.37	
Chlorotoluene .	4	<10	•	37.9	
Dibromochloromethane	^ 2	<10	ł	18.68	!

Compound	Co	oncentrati	.on_	Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	f #
Dibromomethane	11	<10		13.09		!
1,2-Dichlorobenzene	3	<10	<u> </u>	60.10		1
1,3-Dichlorobenzene	6	<10	! !	42.90		:
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	130		3.54		
1,1-Dichloroethane	11	<10		11.67		
1,2-Dichloroethane	1	<10		13.55	·	
1,1-Dichloroethylene	3	<10	! 	10.31		
trans-1,2-Dichloroethylene	.2	<10		12.35		
Dichloromethane	5	<10	!	7.50		4
1,2-Dichloropropane	1	<10		17.19		
				17.24		;
1,3-Dichloropropylene	б	<10		18.68		Ì
1,1,2,2-Tetrachloroethane	7	<10	<u>.</u>	23.47		1
1,1,1,2-Tetrachloroethane	7	<10	i	21.04		i
Tetrachloroethylene	1	<10	<u>{</u>	23.47		i
1,1,1-Trichloroethane	1	<10	<u> </u>	14.76		i.
1,1,2-Trichloroethane	1	<10		18.68		Į.
Trichloroethylene	2	<10	<u>.</u>	17.91		1
Trichlorofluoromethane	1	<10	l t	8.58		
Trichloropropane	2	<10	i I	23.01		1
Vinyl chloride	4	<10	į	3.54		ţ
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Report		

ES Job No. 56528		Lab Sample No.	12-35-1149
Client U.S. A	r Force	Field Sample N	10. 1-ES-E, SS-E
Project PJKS (I	enver	Date Collected	12-17-95
Client No.		Date Received	12-18-85
Laboratory Supervis	sor Approval:	Date Analyzed	1/3/86
John, R Sample Matrix	adamsin	QC Report No.	P.JKS -03
<u>/</u> / Water (ug]/L)	Dilution Facto	or
/X / Soil (ug,	/ g)	*Moisture	•
/_/ Other			

Compound	Concentration		ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	!
Benzyl chloride	4	<10		40.9		•
<pre>bis(2-chloroethoxy) methane</pre>	12	(12		44.2		i
bis(2-chloroisopropyl) ether	25	L 25		42.2		:
Bromobenzene	8	<10		29.18	!	i
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01	!	٠.
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	. <10		26.58		,
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	420		9.37		
Chlorotoluene	4	<10		37.9	:	
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Concentration				Retention Time	
Det Lim	Column 1	Column 2	Column 1	Column 2	
1	<10	1	13.09		
3	<10	!	60.10		!
6	<10	<u>i</u>	42.90		
5	<10	!	37.28		
30	<u> </u>	!	3.54		
1	<10		11.67	·····	,
1	<10		13.55		
3	<10	ļ	10.31	- 	<u> </u>
2	<10	i : : :	12.35		1
55	<10	1	7.50		1
1	<10	<u> </u>	17.19		1
 - 	!	!	17.24		
6	<10		18.68		<u> </u>
7	<10	! ! <u>:</u>	23.47		!
7	<10	<u> </u>	21.04		!
1	<10	!	23.47		!
· 1	<10	<u> </u>	14.76		
11	<10		18.68		!
. 2	<10		17.91		
1	<10	!	8.58		!
2	<10	<u> </u>	23.01		:
4	<10		3.54		į
	1	<u> </u>	!		!
	!	!	,		:
: 	1	:			!
	!				i
	Det Lim 1 3 6 5 30 1 1 3 2 5 1 6 7 1 1 1 2 1 2	Det Lim Column 1	Det Lim Column 1 Column 2 1	Det Lim Column 1 Column 2 Column 1	Det Lim Column 1 Column 2 Column 1 Column 2 1

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No. 12-55-1156
Client U.S. Air Force	Field Sample No. 1-55-7, 55-1
Project PJKS (Denver	Date Collected /2-/8-35
Client No.	Date Received 12-19-85
Laboratory Supervisor Approval:	Date Analyzed 1/1/86
Johnne R Codemoin Sample Matrix	OC Report No. PJKS - 03
/ / Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture%
/_ / Other	

Compound	c	oncentrat	ion	Retenti	on Time Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2:
Benzyl chloride	4	<10		40.9	•
<pre>bis(2-chloroethoxy) methane</pre>	12	 		44.2	:
<pre>bis(2-chloroisopropyl) ether</pre>	25	425		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	1 2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	424		2.85	1
Carbon tetrachloride	3	<10		15.47	:
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10		4.51	1
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	<u>, </u>
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	420		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

Retention Time	
1 Column 2	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No	56528	Lab Sample No	12-85-115	7_
Client	U.S. Air Force	Field Sample No.	1-ES-7, SS 2	
Project	PJKS (Denver	Date Collected _	_	
Client No.		Date Received	12-19-85	
Laboratory S	Supervisor Approval:	Date Analyzed _	1/1/86	
Sample Matri	R Codamoin	QC Report No	PJKS - (3	
<u>/</u> / Wa	iter (ug/L)	Dilution Factor		
<u>/X</u> / Sc	oil (ug/g)	*Moisture		8
<u>/</u> / Ot	ther			_

9	Compound	C	oncentra	tion	Retention	Time Note
		Det Lim	Column	Column 2	Column 1 C	column 2
	Benzyl chloride	4	<10		40.9	•
	bis(2-chloroethoxy) methane	12	<12	-	44.2	
<u>.</u>	bis(2-chloroisopropyl) ether	25	425		42.2	
	Bromobenzene	8	<10		29.18	
	Bromodichloromethane	2	<10		15.69	
	Bromoform	4	<10		21.24	
	Bromomethane	24	124		2.85	
3	Carbon tetrachloride	3	<10		15.47	
ŭ	Chloroacetaldehyde	10	<10		11.6	
5	Chloral	10	<10		18.7	
3 2	Chlorobenzene	5	<10		26.01	
4	Chloroethane	10	<10		4.51	
ş Y	Chloroform	1	<10	<u> </u>	13.01	
	1-Chlorohexane	2	<10	· .	26.58	1
	2-Chloroethyl vinyl ether	3	<10		19.49	
2	Chloromethane	2	<10		.1.95	
	Chloromethyl methyl ether	20	420		9.37	
•	Chlorotoluene	4	<10	<u> </u>	37.9	1
s j,	Dibromochloromethane	2	<10	i	18.68	
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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

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Compound		ncentrat:			Retention Time		
	Det Lim	Column 1	Column	Column 1	Column 2		
Dibromomethane	1	<10	<u> </u>	13.09			
1,2-Dichlorobenzene	3	<10		60.10	•	<u> </u>	
1,3-Dichlorobenzene	66	<10	1	42.90	:	<u> </u>	
1,4-Dichlorobenzene	5	<10	1	37.28		:	
Dichlorodifluoromethane	30	430		3.54		i	
1,1-Dichloroethane	1	<10		11.67	: !	!	
1,2-Dichloroethane	1	<10		13.55	† : :	1	
1,1-Dichloroethylene	3	<10		10.31	:	İ	
trans-1,2-Dichloroethylene	. 2	<10		12.35	ı	İ	
Dichloromethane	5	<10		7.50			
1,2-Dichloropropane	1	<10		17.19	i		
				17.24		i	
1,3-Dichloropropylene	6	<10		18.68		<u> </u>	
1,1,2,2-Tetrachloroethane	7	<10	}	23.47			
1,1,1,2-Tetrachloroethane	7	<10		21.04	1		
Tetrachloroethylene	1	<10		23.47	!	!	
1,1,1-Trichloroethane	1	<10		14.76	:		
1,1,2-Trichloroethane	1	<10		18.68	•	!	
Trichloroethylene	2	<10		17.91	<u>. </u>		
Trichlorofluoromethane	11	<10	1	8.58	Ì		
Trichloropropane	2	<10	!	23.01	į		
Vinyl chloride	4	<10		3.54		ì	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Report	_		

ES Job No. 56528	Lab Sample No. 12-85-1155
Client U.S. Air Force	Field Sample No. 1-ES-7, 55-3
Project PJKS (Denver	Date Collected /2-18-85
Client No.	Date Received
Laboratory Supervisor Approval:	Date Analyzed 1/1/86
John R. Colombia Sample Matrix:	OC Report No. PJKS -C3
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/_/ Other	

Compound	Concentration			Retenti	on Time Notes
1	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2	
bis(2-chloroisopropyl) ether	25	125		42.2	
Bromobenzene	8	<10		29.18	,
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	4 24		2.85	
Carbon tetrachloride	3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	1
Chlorobenzene	5_	<10		26.01	
Chloroethane	10	<10		4.51	
Chloroform	1	<10		13.01	
1-Chlorohexane	2	<10		26.58	•
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	120		9.37	
Chlorotoluene	4	<10		37.9	
Dibromochloromethane	2	<10		18.68	

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

12-35-1158

Compound	Concentration			Retentio	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10	i	
1,3-Dichlorobenzene	6	<10		42.90	<u> </u>	<u> </u>
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	(30		3.54	!	i
1,1-Dichloroethane	1	<10		11.67		1
1,2-Dichloroethane	1	<10		13.55	1	!
1,1-Dichloroethylene	3	<10		10.31	1	
trans-1,2-Dichloroethylene	2	<10		12.35	;	<u> </u>
Dichloromethane	5	<10	<u> </u>	7.50	<u> </u>	!
1,2-Dichloropropane	1	<10		17.19	<u> </u>	
				17.24	<u> </u>	1
1,3-Dichloropropylene	6	<10		18.68		1
1,1,2,2-Tetrachloroethane	7	<10	•	23.47	<u>!</u>	
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47	<u> </u>	
1,1,1-Trichloroethane	1	<10	<u></u>	14.76		
1,1,2-Trichloroethane	11	<10		18.68	1	
Trichloroethylene	2	<10		17.91	•	
Trichlorofluoromethane	1	<10		8.58	1	
Trichloropropane	1.2	<10		23.01	!	
Vinyl chloride	. 4	<10		3.54		İ
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No56528	Lab Sample No	12-55-1159
Client U.S. Air Force	Field Sample No.	1-ES-7 55-4
Project PJKS (Denver	Date Collected _	
Client No.	Date Received _	12-14-85
Laboratory Supervisor Approval:	Date Analyzed _	1/1/36
Johnny R. Golomonnosample Matrix:	QC Report No	PJKS-CS
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	٩
/ / Other		

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	!
Benzyl chloride	4	<10		40.9		ı
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	425		42.2		!
Bromobenzene	8	<10		29.18		!
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	人とよ		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		1
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	420		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

12-85-1159

Compound		ncentrat:		Retentio	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	11	<10		13.09	!	<u> </u>
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10	1 .	42.90	1	1
1,4-Dichlorobenzene	5	<10		37.28		<u> </u>
Dichlorodifluoromethane	30	<u> </u>		3.54	!	!
1,1-Dichloroethane	1	<10		11.67		İ
1,2-Dichloroethane	11	<10		13.55	! 1	
1,1-Dichloroethylene	3	<10	1	10.31	i	!
trans-1,2-Dichloroethylene	2	<10		12.35	!	<u> </u>
Dichloromethane	5	<10		7.50		!
1,2-Dichloropropane	1	<10		17.19		
				17.24		1
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47	1	
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	.1	<10	<u> </u>	14.76	1 i 1	
1,1,2-Trichloroethane	1	<10	<u> </u>	18.68	i i	
Trichloroethylene	2	<10		17.91	į	
Trichlorofluoromethane	1	<10		8.58	!	
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	4	<10		3.54		
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		<u> </u>	İ		:	.
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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<i>\$35</i> 5	Engineering-Science			Organics O		Page / of 2		
	ES Job No. 56528		Lab	Sample N	10.	12-55-1160		
	ClientU.S. Air For	се	_ Fie	ld Sample	No. 1-	ES 7, SS 5		
	Project PJKS (Denver		Dat	e Collect	ed	12-18-85		
6	Client No.		Dat	Date Received /2-19-85				
	Laboratory Supervisor Ap			e Analyze				
	Johnson R Co	Lamon	oc :	Report No	. <u>PJ</u>	TKS - C3		
	/_/ Water (ug/L)		Dil	ution Fac	tor			
	/X / Soil (ug/g)		*Moi	sture		8		
	/_/ Other							
ç	Compound	c	oncentrati	on	Retenti	on Time Notes		
		Det Lim	Column 1	Column 2	Column 1	Column 2		
	Benzyl chloride	4	<10		40.9	i		
	<pre>bis(2-chloroethoxy) methane</pre>	12	LI 2	•	44.2			
	bis(2-chloroisopropyl)		1			1		

Compound	Concentration			Retenti	on Time Note:
-	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	
<pre>bis(2-chloroethoxy) methane</pre>	12	1/12	•	44.2	
bis(2-chloroisopropyl) ether	25	< 15		42.2	
Bromobenzene	8	<10		29.18	!
Bromodichloromethane	2	<10		15.69	
Bromoform	.4	<10		21.24	
Bromomethane	24	<u> </u>		2.85	! i
Carbon tetrachloride	3	<10		15.47	<u> </u>
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	<u>.</u>
Chloroethane	10	<10		4.51	·
Chloroform	1	<10	<u> </u>	13.01	<u>i</u>
1-Chlorohexane	2	<10	<u> </u>	26.58	<u> </u>
2-Chloroethyl vinyl ether	33	<10		19.49	<u> </u>
Chloromethane	2	<10		. 1.95	<u>.</u>
Chloromethyl methyl ether	20	\70		9.37	
Chlorotoluene	4	<10		37.9	! !
Dibromochloromethane	i ₂	<10		18.68	l

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Compound		oncentrat	ion	Retention	Time Notes
	Det Lim	Column 1	Column 2	Column 1 Col	umn 2
Dibromomethane	11	<10		13.09	
1,2-Dichlorobenzene	3	<10	1	60.10	<u>;</u>
1,3-Dichlorobenzene	6	<10	<u> </u>	42.90	<u> </u>
1,4-Dichlorobenzene	5	<10	<u> </u>	37.28	
Dichlorodifluoromethane	30	<30	<u> </u>	3.54	
1,1-Dichloroethane	11	<10		11.67	1
1,2-Dichloroethane	11	<10		13.55	
1,1-Dichloroethylene	3	<10	1	10.31	:
trans-1,2-Dichloroethylene	. 2	<10		12.35	;
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
				17.24	·
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10	<u> </u>	23.47	
1,1,1,2-Tetrachloroethane	7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76	
1,1,2-Trichloroethane	1 1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	. 1	<10		8.58	1
Trichloropropane	2	<10		23.01	· · · · · · · · · · · · · · · · · · ·
Vinyl chloride	4	<10		3.54	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No56528	Lab Sample No	_
Client U.S. Air Force	Field Sample No. 1-ES-7, 55-6	
Project PJKS (Denver	Date Collected 12 - 18 - 85	
Client No.	Date Received 12-19-5	
Laboratory Supervisor Approval:	Date Analyzed 1/1/86	
John R adamo Sample Matrix:	QC Report No. PJKS - C4	_
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	ķ
/ / Other		

Compound	C	oncentrat	ion	Retention Time Not		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	 i
Benzyl chloride	4	<10		40.9	<u> </u>	١ _,
<pre>bis(2-chloroethoxy) methane</pre>	12	<12	-	44.2		1
<pre>bis(2-chloroisopropyl) ether</pre>	2 5	<25		42.2		: !
Bromobenzene	8	<10		29.18	!	1
Bromodichloromethane	2	<10		15.69		ı
Bromoform	.4	<10		21.24	<u> </u>	
Bromomethane	. 24	ZZ4		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		_
Chloroethane	.10	<10		4.51	1	
Chloroform	1	<10		13.01		
1-Chlorohexane	. 2	<10		26.58	;	,
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	120		9.37		
Chlorotoluene	4	<10		37.9	1	
Dibromochloromethane	2	<10		18.68		

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Compound		ncentrati		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10	!	13.09		İ
1,2-Dichlorobenzene	3	<10	1	60.10		į
1,3-Dichlorobenzene	6	<10	1	42.90		į
1,4-Dichlorobenzene	5	<10	<u>.</u>	37.28		
Dichlorodifluoromethane	30	430		3.54	·	
1,1-Dichloroethane	1	<10		11.67		ŧ
1,2-Dichloroethane	. 1	<10		13.55	:	;
1,1-Dichloroethylene	3	<10	!	10.31	•	!
trans-1,2-Dichloroethylene	2	<10		12.35		: :
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		:
•				17.24	1	!
1,3-Dichloropropylene	5	<10		18.68		<u> </u>
1,1,2,2-Tetrachloroethane	7	<10	!	23.47	!	!
1,1,1,2-Tetrachloroethane	7	<10	i	21.04	•	l :
Tetrachloroethylene	. 1	<10	<u> </u>	23.47	!	<u> </u>
1,1,1-Trichloroethane	11	<10		14.76	:	
1,1,2-Trichloroethane	<u> </u>	<10		18.68	•	!
Trichloroethylene	2	<10		17.91	;	
Trichlorofluoromethane	1	<10		8.58		T
Trichloropropane	2	<10	ļ.	23.01	•	:
Vinyl chloride	4	<10	<u> </u>	3.54		i
	1			1		
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	:	1		1		
	_	:			- 	

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. <u>4-55-1116</u>
Client U.S. Air Force	Field Sample No. 1-25-3 55-1:0-1.5
ProjectFJKS (Denver)	Date Collected (2/16/85
Client No.	Date Received 12/,7/85
Laboratory Supervisor Approval:	Date Analyzed 12/23/85
Johnny R adamson Sample Matrix:	OC Report No. 56528-1
/ / Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/_/ Other	

Compound	C	Concentration			on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	.'4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93	<u> </u>	
1,3-Dichlorobenzene	. 8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	. 4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No	12-85-1117
Client	U.S. Air Force	Field Sample No.	1-65-3 55-2:4.0-5.
Project	PJKS (Denver)	Date Collected _	12/16/85
Client No.		Date Received _	12/17/85
Laboratory	Supervisor Approval:	Date Analyzed	12/23/85
Sample Mati	R. Colamon	OC Report No	56528-1
<u>/_</u> / v	Water (ug/L)	Dilution Factor _	
<u>/x</u> / s	Soil (ug/g)	*Moisture	
/ / 0	Other		

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	. ,4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	. 48	<10		27.93	<u> </u>	
1,3-Dichlorobenzene		<10		26.40		
1,4-Dichlorobenzene		<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47	1	
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No.	12-E5-111R
Client	U.S. Air Force	Field Sample No.	1-ES-3 SS-3; 6.5-8.
Project	PJKS (Denver)	Date Collected	12/16/85
Client No.		Date Received _	12/17/85
Laboratory	Supervisor Approval:	Date Analyzed	12/24/85
Sample Mati	R. adamson	OC Report No	565 28-1
<u>/</u> / v	Nater (ug/L)	Dilution Factor _	
<u>/x</u> _/ s	Soil (ug/g)	*Moisture	*
/ / (Other		

Compound	Concentration			Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column	2
Benzene	. 4	<10		2.26		
Chlorobenzene	4	<10		16.46	<u> </u>	1
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
	•		1	 	<u> </u>	<u> </u>

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No	12-85-1119
Client	U.S. Air Force	Field Sample No.	1-ES-3 SS-4: 9.5-10, 2
Project	PJKS (Denver)	Date Collected _	12/16/85
Client No.		Date Received _	12/17/85
Laboratory	Supervisor Approval:	Date Analyzed _	124/85
Johnn Sample Mat	R. adamson	OC Report No	56528-1
/_/	Water (ug/L)	Dilution Factor	
<u>/x</u> /	Soil (ug/g)	*Moisture	•
/	Other		

Compound	C	oncentrat	ion	Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	: 8	<10		26.40		
1,4-Dichlorobenzene	. 6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		
	•					

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No	12-85-1120
Client _	U.S. Air Force	Field Sample No.	1-ES-3 SS-5; 12.5-14
Project _	PJKS (Denver)	Date Collected	12/16/85
Client No	•	Date Received _	12/17/85
Laboratory	y Supervisor Approval:	Date Analyzed	12/24/85
Sample Mar	R. adams.	OC Report No	56528-1
/_/	Water (ug/L)	Dilution Factor _	·
<u>/x</u> _/	Soil (ug/g)	*Moisture	\$
<u>/_</u> /	Other		

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	. 8	<10		27.93		
1,3-Dichlorobenzene	. 8	<10		26.40		
1,4-Dichlorobenzene	. 6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	4	<10		5.47		<u>.</u>
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
	<u> </u>			 		<u> </u>
	• •	 				<u> </u>

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. 12-85-1121
Client U.S. Air Force	Field Sample No. 1-ES-3 55-6: 16.5-18.
Project PJKS (Denver)	Date Collected 12/16/55
Client No.	Date Received 12/17/85
Laboratory Supervisor Approval:	Date Analyzed 12/26/85
Johnny R. Odamon Sample Matrix	OC Report No. 56528-1
/_/ Water (ug/L)	Dilution Factor
<u>/X</u> / Soil (ug/g)	*Moisture
/_/ Other	

Compound	C	oncentrati	Lon	Retent	ion Time	Notes
	Det Lim	Column 1	Column 2	Column	1 Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	. 4	<10	<u></u>	16.46		
1,2-Dichlorobenzene	. 8	<10		27.93		<u></u>
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
				 	-	<u> </u>

^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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ES Job No.	56528	Lab Sample No.	12-85-1122	
Client	U.S. Air Force	Field Sample No. !	-Es-35S-7;19.5-2c.	َز
Project	PJKS (Denver)	Date Collected	12/10/85	
Client No.		Date Received	12/17/85	
Laboratory	Supervisor Approval:	Date Analyzed	12/26-185	
Sample Mat	R. alaman	OC Report No.	56528-1	
/	Water (ug/L)	Dilution Factor		
<u>/x</u> _/	Soil (ug/g)	*Moisture		
/ /	Other			

Det Lim		Column 2	Column 1	Column 2	
4			L	1	
	<10		2.26		
. 4	<10		16.46		
. 8	<10		27.93		
8	<10		26.40		
.6	<10		22.51		
4	<10		7.18		
_4	<10	-	5.47		
4	.<10		15.26 16.91 17.77		
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	. 8 . 6 . 4 . 4	. 8 <10 . 8 <10 . 6 <10 . 4 <10 . 4 <10	. 8 <10 . 8 <10 . 6 <10 . 4 <10 . 4 <10	. 8 <10 27.93 .8 <10 26.40 .6 <10 22.51 .4 <10 7.18 .4 <10 5.47 .15.26 .16.91 .17.77	. 8 <10 27.93 . 8 <10 26.40 . 6 <10 22.51 . 4 <10 7.18 . 4 <10 5.47 . 15.26 . 16.91 . 17.77

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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ES Job No.	56528	Lab Sample No.	12-85-1123
Client	U.S. Air Force	Field Sample No. 1	-ES-T, SS-1:1,0-2.0
Project	PJKS (Denver)	Date Collected	12/16/85
Client No.		Date Received	12/17/85
Laboratory	Supervisor Approval:	Date Analyzed	12/26/85
Sample Matr	R. adamsı	OC Report No.	56528-1
<u>/</u> / v	Water (ug/L)	Dilution Factor	
<u>/x</u> / s	Soil (ug/g)	*Moisture	\$
/ / 0	Other		

Compound	С	oncentrat	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	. 4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		.22.51		
Ethyl benzene	44	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. 12-85-1124
Client U.S. Air Force	Field Sample No. 1- ES-+ SS-2: 5.0-7.0
Project PJKS (Denver)	Date Collected (2/86/85
Client No.	Date Received 12/;7/85
Laboratory Supervisor Approval:	Date Analyzed 12/26/85
John R. adamor Sample Matrix	OC Report No. 56528-1
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture%
/_/ Other	

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	, e	<10		27.93	İ	
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	6	<10_		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	. ".4	<10		5.47		
Xylenes (Dimethyl benzene)	4	. <10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No.	12-85-1125
Client	U.S. Air Force	Field Sample No.	1-45-4, 55-3: 8.5-1
Project	PJKS (Denver)	Date Collected	12/16/85
Client No.		Date Received	12/12/85
Laboratory	Supervisor Approval:	Date Analyzed	12/26/85
Sample Mat:	ng R adamoin	OC Report No.	56528-1
/_/ 1	Water (ug/L)	Dilution Factor _	
<u>/x</u> / 9	Soil (ug/g)	*Moisture	8
/ / (Other		

Compound	C	oncentrat:	ion	Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93	<u> </u>	
1,3-Dichlorobenzene	88	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	. 4	<10		5.47		
Xylenes (Dimethyl benzene)	-4	<10	·	15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No	12-85-1126
Client	U.S. Air Force	Field Sample No.	1-E5-4 55-4: 11.5-12.1
Project	PJKS (Denver)	Date Collected _	12/16/85
Client No.		Date Received	12/17/85
Laboratory	Supervisor Approval:	Date Analyzed _	12/26/85
Sample Matr	R adamson	OC Report No	56528-2
<u>/_</u> / W	Water (ug/L)	Dilution Factor _	
<u>/x</u> / s	Soil (ug/g)	*Moisture	<u> </u>
/_/ 0	ther		

					Column 2
Benzene	.4	<10	<u> </u>	2.26	
Chlorobenzene	4	<10		16.46	
1,2-Dichlorobenzene	8	<10		27.93	
1,3-Dichlorobenzene	8	<10	<u> </u>	26.40	
1,4-Dichlorobenzene	6	<10		22.51	
Ethyl benzene	4	<10		7.18	
Toluene	4	<10		5.47	
				15.26	
Xylenes (Dimethyl be	enzene) 4	<10		16.91 17.77	
. Aylenes (bline chyl be	1			1,,,,	
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* If % moisture is 1	reported result	<u> </u>	ocented o		<u> </u>
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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ES Job No	56528	Lab Sample No.	12-85-1127
Client _	U.S. Air Force	Field Sample No.	1- 25-4 55-5314.5-11
Project _	PJKS (Denver)	Date Collected	12/16/85
Client No	•	Date Received _	12/17/85
Laborator	y Supervisor Approval:	Date Analyzed	12/26/85
Sample Mar	ng R Odamon	OC Report No	56528-2
/	Water (ug/L)	Dilution Factor _	
<u>/x</u> /	Soil (ug/g)	*Moisture	<u> </u>
/ /	Other		

Compound	С	oncentrat	ion	Retenti	on Time	ime Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2		
Benzene	. 4	<10		2.26			
Chlorobenzene	4	<10		16.46			
1,2-Dichlorobenzene	.8	<10		27.93			
1,3-Dichlorobenzene	8	<10	<u> </u>	26.40			
1,4-Dichlorobenzene	6	<10		22.51			
Ethyl benzene	4	<10		7.18			
Toluene	4	<10		5.47			
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77			
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No	12-85-1128
Client	U.S. Air Force	Field Sample No.	1- =5-4 55-61 19.0-20,5
Project _	PJKS (Denver)	Date Collected _	12/16/55
Client No.	· <u></u>	Date Received _	12/17/95
Laboratory	Supervisor Approval:	Date Analyzed	12/20185
Johnn Sample Mat	R. alamoin	OC Report No.	56528-2
<u>/_</u> /	Water (ug/L)	Dilution Factor	
<u>/x</u> /	Soil (ug/g)	*Moisture	9
/_/	Other		

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4 4 5	ES Job No. 56528		_ La	ab Sample 1	No	12 - 85 -	1128
3.	Client U.S. Air Force		_ Fi	eld Sampl	e No. 1-	=5-4 SS.	-6:19
-	Project PJKS (Denver)		_ Da	te Collec	ted	12/16/5	5
	Client No			te Receiv			
•	Laboratory Supervisor Appro			te Analyz			
	Johnny R adan	~o(~		Report N		,	
<u>نې</u>	Sample Matrix:		=				
3	/ / Water (ug/L)		Di	lution Fac	ctor		
•	/X / Soil (ug/g)			oisture			
	/ / Other						
	<u></u>						
	Compound	C	oncentrat	ion	Retenti	on Time	Notes
·	Compound			Column 2			
· ar							!
Í	Benzene	4	<10	1	2.26	1	i
-	Chlorobenzene	. 4	<10	ļ	16.46	<u> </u>	1
3	1,2-Dichlorobenzene	8	<10		27.93		
·5	1,3-Dichlorobenzene	8	<10	<u> </u>	26.40		
L	1,4-Dichlorobenzene	6	<10		22.51		
	Ethyl benzene	. 4	<10		7.18		
	Toluene	.4	<10		5.47		
					15.26		
r.,			_		16.91		
Ć.	Xylenes (Dimethyl benzene)	4	<10	 	17.77		
				-		-	<u> </u>
		1			!		
		i	 				
<u>.</u>							<u> </u>
	* If % moisture is reporte	ed, resul	ts are pr	esented of	n a dry-v	weight bas	is.
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No56528	Lab Sample No. 12-85-1129	
Client U.S. Air Force	Field Sample No. 1-65-5 <5 ; 10-	<u>= </u>
Project PJKS (Denver)	Date Collected	
Client No.	Date Received	,
Laboratory Supervisor Approval:	Date Analyzed 12/27/85	
John R. adamson Sample Matrix	OC Report No. 56528-1	
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	С	Concentration			Retention Time		
_	Det Lim	Column 1	Column 2	Column 1	Column 2		
Benzene	. 4	<10	ļ	2.26			
Chlorobenzene	. 4	<10		16.46			
1,2-Dichlorobenzene	8	<10	<u> </u>	27.93			
1,3-Dichlorobenzene	3	<10		26.40			
1,4-Dichlorobenzene	. 6	<10		22.51			
Ethyl benzene	4	<10		7.18			
Toluene	4	<10		5.47			
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77			
				<u> </u>	<u> </u>		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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Lab Sample No. 12-85-1130
Field Sample No. 1-25-5 55-2: 2-4
Date Collected 12/16/85
Date Received 12/17/85
Date Analyzed 12/27/85
OC Report No. <u>56528-2</u>
Dilution Factor
*Moisture

Compound	C	oncentrat	ion	Retenti	on_Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10	ļ	2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51	'	
Ethyl benzene	.0.4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10	•	15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. 12-85-1131
Client U.S. Air Force	Field Sample No. 1-ES-5, 353: 4-6
Project PJKS (Denver)	Date Collected 12/16/85
Client No.	Date Received 12/17/85
Laboratory Supervisor Approval:	Date Analyzed 12/27/85
Johnn Radanson Sample Matrix	OC Report No. 56528-2
/_/ Water (ug/L)	Dilution Factor
<pre>/X / Soil (ug/g)</pre>	*Moisture
// Other	

C	Concentration			on Time	Notes
Det Lim	Column 1	Column 2	Column 1	Column 2	
. :4	<10		2.26		
4	<10		16.46		
. 8	<10		27.93		
8	<10		26.40		
6	<10		22.51	<u> </u>	
. 4	<10		7.18		
4	<10		5.47		
4	<10		15.26 16.91 17.77		
<u> </u>					
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	4 4 8 8 	.:4 <10 4 <10 .:8 <10 .:8 <10 .:6 <10 .:4 <10 4 <10	.:4 <10 4 <10 .:8 <10 .:8 <10 .:8 <10 .:6 <10 .:4 <10 4 <10	.4 <10	4 <10 16.46 . 8 <10 27.93 . 8 <10 26.40 6 <10 22.51 . 4 <10 7.18 4 <10 5.47 15.26 16.91

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. <u>56528</u>	Lab Sample No.	12-85-1132
Client U.S. Air Force	Field Sample No.	1-ES-5, SS+: 9-11
Project PJKS (Denver)	Date Collected	12/16/85
Client No.	Date Received	12/17/85
Laboratory Supervisor Approval:	Date Analyzed	12/27/85
Johnny R Cidamon Sample Matrix	OC Report No	56528-2
/ / Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	8
/_/ Other		

Compound	Concentration			Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	. 4	<10		2.26		
Chlorobenzene	.'4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	:6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.		Lab Sample No	12-85-1133
Client _	U.S. Air Force	Field Sample No.	1-=5-5, 555: 14-16
Project _	PJKS (Denver)	Date Collected	
Client No.	•	Date Received	12/17/85
Laborator	y Supervisor Approval:	Date Analyzed	12/27/85
Gohn Sample Mar	ny R. adamson	OC Report No	56528-2
/	Water (ug/L)	Dilution Factor _	
<u>/x</u> _/	Soil (ug/g)	*Moisture	•
/	Other		

Compound		Concentra	ion	Retenti	on Time	Notes
	Det Li	m Column	Column 2	Column 1	Column 2	
Benzene .	4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	<u>8'</u>	<10		27.93		
1,3-Dichlorobenzene	в	<10		26.40		
1,4-Dichlorobenzene	·6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
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^{*} If * moisture is reported, results are presented on a dry-weight basis.

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ES Job No56528	Lab Sample No
Client U.S. Air Force	Field Sample No. 1-65-5, 556; 19-22.
Project PJKS (Denver)	Date Collected 12/16/85
Client No.	Date Received
Laboratory Supervisor Approval:	Date Analyzed 12/27/85
Sample Matrix: R. Adamoca—	OC Report No
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/ / Other	·

Compound	C	oncentrat	ion	Retent	Notes	
	Det Lim	Column 1	Column 2	Column	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	. 4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	. 8	<10		26.40	<u> </u>	
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	: .4	<10		5.47		
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No 56528	Lab Sample No. 12-85-1144
Client U.S. Air Force	Field Sample No. 1-ES-6 55-1:0-2
Project PJKS (Denver)	Date Collected 12/17/85
Client No.	Date Received 12/18/85
Laboratory Supervisor Approval:	Date Analyzed
Johnny R. Odamoan Sample Matrix.	OC Report No. <u>56528 - 2</u>
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/_/ Other	

Compound	C	oncentrati	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	. 4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	. 18	<10		27.93		
1,3-Dichlorobenzene)8	<10		26.40		
1,4-Dichlorobenzene	`6	<10		22.51		
Ethyl benzene	4	<10_		7.18		
Toluene	14	<10		5.47		
Xylenes (Dimethyl benzene))4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. 12-85-1145
Client U.S. Air Force	Field Sample No. 1-E5-6, SS-2, 2-4
Project PJKS (Denver)	Date Collected 12/17/85
Client No.	Date Received 12/18/85
Laboratory Supervisor Approval:	Date Analyzed 12/28/85
Johnny R. Odanson Sample Matrix:	OC Report No. 56528-3
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/_/ Other	

Compound	C	Concentration			Retention Time		
	Det Lim	Column 1	Column 2	Column 1	Column 2		
Benzene	4	<10		2.26			
Chlorobenzene .	4	<10		16.46			
1,2-Dichlorobenzene	8	<10		27.93			
1,3-Dichlorobenzene	8	<10		26.40			
1,4-Dichlorobenzene	6	<10		22.51		<u> </u>	
Ethyl benzene	. 4	<10		7.18			
Toluene	4	<10		5.47			
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77			
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No	12-85-1146
Client _	U.S. Air Force	Field Sample No.	1-ES-6, SS- 3 5-71
Project _	PJKS (Denver)	Date Collected	12/17/85
Client No.	•	Date Received	12/18/85
Laboratory	y Supervisor Approval:	Date Analyzed	12/28/85
Johnn Sample Mat	uph Odamoun	OC Report No	56528-3
/	Water (ug/L)	Dilution Factor _	
<u>/x</u> _/	Soil (ug/g)	*Moisture	
<u>/_</u> /	Other		

Compound	Concentration			Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	. 3	<10		27.93		
1,3-Dichlorobenzene	- 8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene	; ;	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

Discrepancy in clock noted.

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ES Job No. <u>56528</u>	Lab Sample No. 12-85-1147
Client U.S. Air Force	Field Sample No. 1- FS-6, SS-4, 9-11
Project PJKS (Denver)	Date -Collected 12/17/85
Client No.	Date Received 12/18/85
Laboratory Supervisor Approval:	Date Analyzed 1/3/86
Johnny R. adamson Sample Matrix	OC Report No. 56528-3
/_/ Water (ug/L)	Dilution Factor
<u>/X</u> / Soil (ug/g)	*Moisture
/ / Other	

Compound	C	oncentrat	ion	Retent	ion Time	Notes
	Det Lim	Column 1	Column 2	Column	Column 2	
Benzene	. 4	<10		2.26	İ	
Chlorobenzene	. 4	<10		16.46		
1,2-Dichlorobenzene	\18	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	:6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	. 4	<10		5.47		
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		
						
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No	12-83-1148
Client	U.S. Air Force	Field Sample No.	1-ES-6,55-5, 14-16
Project	PJKS (Denver)	Date Collected	12/17/85
Client No.		Date Received _	12/18/85
Laboratory	Supervisor Approval:	Date Analyzed _	1/3/86
Johnn Sample Mati	R. Odamon —	OC Report No	56528-3
<u>/</u> / v	Nater (ug/L)	Dilution Factor	
<u>/x</u> / s	Soil (ug/g)	*Moisture	<u></u> *
<u>/</u> / (Other		

Compound	Concentration			Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	. 4	<10		2.26		
Chlorobenzene	. 4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10	<u> </u>	22.51		
Ethyl benzene	4	<10		7.18		
Toluene	. 4	<10		5.47	<u> </u>	
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
					<u> </u>	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

Page _	1_	of	1
Report	_		

ES Job No. 56528	Lab Sample No.	12-85-1149
Client U.S. Air Force	Field Sample No.	1-ES-6, SS-6, 19-21
Project PJKS (Denver)	Date Collected _	12/17/85
Client No.	Date Received _	12/18/85
Laboratory Supervisor Approval:	Date Analyzed _	1/3/86
Johnny R adamson Sample Matrix	OC Report No.	5-6528-3
/_/ Water (ug/L)	Dilution Factor	
<pre>/X / Soil (ug/g)</pre>	*Moisture	•
/ / Other		

Compound	C	Retention Time			Notes		
	Det Lim	Column 1	Column 2	Column	1 Co	lumn 2	
Benzene	.4	<10		2.26			
Chlorobenzene	4	<10	·	16.46			
1,2-Dichlorobenzene		<10		27.93			
1,3-Dichlorobenzene	8	<10		26.40			<u> </u>
1,4-Dichlorobenzene	. 6	<10		22.51			
Ethyl benzene	. 4	<10		7.18			
Toluene	. 4	<10		5.47			
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77			
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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Report	<u> </u>	

ES Job No. 56528	Lab Sample No. 12-85-1156
Client U.S. Air Force	Field Sample No. 1-ES-7 SS-1 0-2
Project PJKS (Denver)	Date Collected 12/18/85
Client No.	Date Received 12/19/85
Laboratory Supervisor Approval:	Date Analyzed 1/1/86
Johnny R. adamon Sample Matrix	OC Report No. <u>56528-3</u>
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture %
/ / 045	

Compound	C	oncentrat:	ion	Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10	•	2.26		
Chlorobenzene	. 14	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	66	<10		22.51	<u> </u>	
Ethyl benzene	.4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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ES Job No. 56528	Lab Sample No. 12-85-1157
Client U.S. Air Force	Field Sample No. 1-ES-7, SS-2, 2-4
Project PJKS (Denver)	Date Collected 12)18/65
Client No.	Date Received 12/14/85
Laboratory Supervisor Approval:	Date Analyzed 1/1/86
Johnny R. adamson Sample Matrix	OC Report No. <u>56528-3</u>
/_/ Water (ug/L)	Dilution Factor
<u>/X</u> / Soil (ug/g)	*Moisture
/ / Other	•

Compound	Concentration				Retenti	on_	Time	•	Notes
	Det	Lim	Column 1	Column 2	Column	Co	lumn	2	į
Benzene		4	<10		2.26				
Chlorobenzene	· _	4	<10		16.46		·	İ	
1,2-Dichlorobenzene		8	<10		27.93			-	
1,3-Dichlorobenzene	<u> </u>	8	<10		26.40				
1,4-Dichlorobenzene	,	6	<10		22.51			. !	
Ethyl benzene	.,	4	<10		7.18				
Toluene		4	<10		5.47			i	
Xylenes (Dimethyl benzene)		4	<10		15.26 16.91 17.77			1	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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ES Job No. <u>56528</u>	Lab Sample No. 12-85-1158	_
Client U.S. Air Force	Field Sample No. $1-ES-7$, $SS-3$, S	<u>-</u> フ
Project PJKS (Denver)	Date Collected 12/18/85	_
Client No.	Date Received 12/19/85	_
Laboratory Supervisor Approval:	Date Analyzed 1/1/86	_
John R. adamson Sample Matrix	OC Report No. 50528-3	-
/_/ Water (ug/L)	Dilution Factor	_
/X / Soil (ug/g)	*Moisture	8
/ / Other		

Compound	C	oncentrat:	ion	Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10	<u> </u>	16.46		
1,2-Dichlorobenzene	.8	<10	· ·	27.93		<u> </u>
1,3-Dichlorobenzene	. 8	<10	<u> </u>	26.40		
1,4-Dichlorobenzene	- 6	<10		22.51	<u> </u>	
Ethyl benzene	4	<10		7.18		
Toluene	. 4	<10		5.47	<u> </u>	İ
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
!						
			<u> </u>	<u> </u>		
· · · · · · · · · · · · · · · · · · ·		<u> </u>	<u> </u>		<u> </u>	·
		<u> </u>			<u> </u>	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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ES Job No56528	Lab Sample No. 12-	85-1159
Client U.S. Air Force	Field Sample No. 1-ES-7	, ss-4, 9-11°
Project PJKS (Denver)	Date Collected 12	118/85
Client No.	Date Received	119185
Laboratory Supervisor Approval:	Date Analyzed	186
Johnny R. adamson Sample Matrix	OC Report No. 5652	<u>8-3</u>
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	*
/ / Other		

Compound	C	oncentrat	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93	1	
1,3-Dichlorobenzene	8	<10	<u> </u>	26.40	<u> </u>	
1,4-Dichlorobenzene	.6	<10		22.51		İ
Ethyl benzene	4	<10		7.18		
Toluene	. 4	<10		5.47	ļ	
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		
		,	<u> </u>	<u> </u>	1	· · ·
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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Report		

ES Job No. <u>56528</u>	Lab Sample No.	12-85-1160
Client U.S. Air Force	Field Sample No. 1	-ES-7 SS-5, 14-16
Project PJKS (Denver)	Date Collected	12/18/85
Client No.	Date Received	12/19/85
Laboratory Supervisor Approval:	Date Analyzed	1/1/86
Johnny R. adamson Sample Matrix:	OC Report No.	5 0528-3
/_/ Water (ug/L)	Dilution Factor	
<u>/X</u> / Soil (ug/g)	*Moisture	
/ / Other		

Compound	Concentration		Retenti	Notes		
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	. 4	<10		2.26		
Chlorobenzene	4	<10		16.46	1	
1,2-Dichlorobenzene	. 8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40	<u> </u>	
1,4-Dichlorobenzene	. 6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	4	<10		5.47		
				15.26 16.91		
Xylenes (Dimethyl benzene)	4	<10		17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020 Page of Report

ES Job No.	56528	Lab Sample No.	12-85-1161
Client	U.S. Air Force	Field Sample No.	1-85-7,55-6,19-21
Project	PJKS (Denver)	Date Collected	12/18/85
Client No.		Date Received	12/19/85
Laboratory :	Supervisor Approval:	Date Analyzed	1/1/86
Sample Matri	R. adamsin	OC Report No	56528-4
<u>/</u> / Wa	ater (ug/L)	Dilution Factor _	
<u>/X</u> / So	oil (ug/g)	*Moisture	
/_/ 01	ther		•

Compound	C	oncentrati	ion	Retent	ion Time	Notes
	Det Lim	Column 1	Column 2	Column	1 Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	. 4	<10		16.46		
1,2-Dichlorobenzene	. 8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40	.	
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	. 4	<10		5.47		
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

Johnson R. adamoer aboratory supervisor Approvat: C. Report Bo. Environmental Quality Parameters 11/ Soil (ug/g) (ug/Kg) ANALYTICAL RESULTS SUMMARY Water (ug/L) Sample Matrix: // Other ES JOD NO. 56578 WSAF Engincering-Science Date Received Date Collected Client No. Project Client

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Field Sample No.	Lab Sample No.	~0N	NOz	Phenolia	TKN	C. H		-	Potes
PJKS. 1-85, 55-10-15 1285-1116	9111-5821	Ó. 13	5.0	9.0	919	4017-			İ
17KS 1-25-3 55-2:45	4111- 1	1.9	21.0	٠,٦	180	<0.17			i
PSKS 1-55-3,55-31658	8111	0.09	0.7	\$107	110	<0.17			
PJKS 1-25-3.55-49-12	6111	0. اک	Z1.0	{0,5	150	(t) (0)	-		
PJK5 1-25-35-125-1	97//	0.12	5.0	₹S•0>	401	50,13-			İ
P1K5,1-25-3,55-6:45-481	1777	D-349	$0.\tau$	* \$10>	20%	<0.17			
P5K5 1-25-3,58-7:115-20	77/1 /3	0.088	6.17	40.5*	×4×	<0,1₹1,0>			
1-1:1-55-4-53-1:1-7	1/23	514.0	5.5	<0.5*	190x	O. 17			
PTKC1-25-455-25-7	7411	5159.0	7.0	<0,5⁴	₹100°	<u>*</u> -0			
PTKS.1-25-455.3.85.10	JT// /	51.0	9	40.5 *	130€1	<0.13			
							-		
Date Analyzed	M	12,0	120	3+8#	21 School Cl	12 + 16			
Analytical Method		EFI) 354.1	352.1	1.064		8PA 7 196			
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^{*} If A moisture is reported, results are presented on a dry-weight basis.

Page / of Report 1 Environmental Quality Parameters 3 ANALYTICAL RESULTS SUMMARY 5 See real and 3 Engineering-Science

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Aporatory Supervisor Approval: CC Report In.

Yehrmy R. Chamour ni fution Factor

Sample Matrix:

PJKS

Client No.

Project

Client

56528

ES Job No.

MSHF

• Moisture

5.3/9/77 Date Collected Date Received

127 Soil (ug/y) (ug/kg) /_/ Water (ug/l.)

										100
		Tab Sample No.	NO.	7//)	Production C. M.	TKN	H C			
	Field Sample No.		4	3	11000	1				
	711-25-11 11311111111111111111111111111111111	11-56-1126	0.13	∞	<0.5	0	<013:			
	7564175-55 7-52-15461		7.	(001	4	<u>ب ر</u>			
L-	7-30-1 CCV-10.5-6	11)7-	0 - ()		707	9	7777			
-10		3(1)	41.1	X	4.0	58	<0.13			
3	1-2-4 55-6 11-6-1				\ <	633	←1'0>			
	12-81-85 J-35-1	113	0.000		200		1			
		971	71.0	<u>√</u>	0,0	288	0.21			
	7-2-25 5=53-1			-	7 7/		70.17			
	7-7-2-5	113	0.23	7	C 102	1				
	2000		700	۲.	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	44	- t) '0'			
	1-5-5-5-1	1132	0:43	25.5	7		1			
		271	0/0	- V	01	50	401			
	1- 11:5-52 -2-53-1		1	-		000	7 1			
	31(-6), 1-1) 31311 1	±≈=	960.0	イント	50,5	90	1			
	V 65 5 5 10 1			-						
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					1	4		1	\	
	Date Analyzed	Ξ	~\\ \\	<u>^</u>	1/2	300	100			
	7	2	2	ながり		361.3				
	Analyrical Method		EPM 354.	1 21/135	うらいて 493 子子子 4193 1、OCH 493 1、ことには 11.1926 1193	学さら	361C t/d3			
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Column R. Colomon. OC Report No. Moisture Environmental Quality Parameters // Soil ((ug/g)) (ug/kg) ANALYTICAL RESULTS SUMMARY / / Water (ug/L) Sample Matrix: 56528 USAF Engineering-Science Date Received Date Collected ES Job No. Client No. Project Client

Field Sample No.	Lab Sample No.	10°	NU	NU2 Phonelic TKN Crt	ŤKN	で、世		भिर्माण्ड
PIKS 1-25-6 SS-11-1	hh11-53-71	91.0	7	40.5	840	50,02		
h-t't-55		*70.0	イーナ	<0,5	300	<0,0>		i
1.58-55	9411	p. 0	1>	O. 7	520			
J+671-SS	1711	0.00€¥	* 1ン	<0,5	30			
9-14-15	8/11	0.038*	* -	<0.5	150×			
1/2-1/1-1/	 	₹ 690.0	メーン	40.5	160 K	41.02		
				•				
Date Analyzed	M	120427	12.042	7/2-	- Xizin	7/2		
Analytical Method		\$P11.354.1	5 PM 352.1	PA 420.	E-15E 113	2615 893	 	
# 1f & moieture is reported		S are ore	sonter or	results are presented on a dry-wolaht basis.	ight bagi	3.		

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	成分	0.30	₹0,13	F1.0>	<0,0>	YOUR-	<01(7)					
	TKN	730	ران <i>0</i>	120	30	34	73					
	Physica TKN CT	20,5	<0,5	40.5	70.5	<0.5	<0.5					
/ Other	N0,	17	7	 >	< l	17	17					
7	100	17.0	6.13	20.08	20.08	80.07	X0.07					
18/6/	Lab Sample No.	7511-58-81	1 1157	8511	1154	07//	19//					
Date Received /1/1/9/	Field Sample No.	PTKS 1-25-755-10-21 12-85-1156	, 7- 2'2-8,	x-3 €-55°	,11-b't-ss	91-11 >-55	15-4. 1-21					
Date Rec	Field Sa	PTKS 1-						 				

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Analytical Method

Date Analyzed

2PM XC4.1 | EPM XX.1 | EPM 420.1 | EPM 351.3 | EPM 745

[·] If a moisture is reported, results are presented on a dry-weight basis.

7- 30-7 Aboratory Supervisor Approval: Report Parie Diffution Exetor CC Report No. Moisture Environmental Quality Parameters Soil (ug/g) (ug/kg) ANALYTICAL RESULTS SUMMARY Water (ug/L) Sample Matrix: Other 3] 56528 PJKS WSAF Engineering-Science Date Collected Date Received ES Job No. Client No. Project Client

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Field Sample No.	No.	Lab Sample No.	10°	10 N	Phunchia TKN CrIT	TKN	CY		Notes
PTKS 1-25 55:10-15 1255-1116	5-10-15	9111-55-111	C. /3	0.5	9.0	616	₹1°0>		
	5+X-5	€11/- 1	1.9	0.12	4,0	180	<0.17 √1.0>		
PTKS 1-55-3 55-315-3	5-37,5-3	\$111	C.039	0.1	5107	1100	1100 <0.17		
	-49.7	61.1	5/ 2	21.0	(0.5	150°	1500 (0,17)		
PTK 1-25-355-5 1254	5 1250	97/	C 12	5.0	<0.5	40	40 . <0.17		
17K5 1-25-3,5-1, 65.75	,S+.J.9.	[7//	F28-3		40,54	50°			
PTK 1-25-3 55-7 17.22	7.50.1	77//	0.058	41.0	<0.5°		54~ (0,13		
17.4.1-82-4.85-1.7.7	, <u>,</u>	24//	5/4/0		<0.5>		190, 0:17		
1-37-55 4-58-1 3740	1-37-	カイル	0.694	2.0	40.5>	< 609	0.190		
PTKS. 1-85-455-31570	5 5 70	して	5/10	9	40.5		K1.0>		
Date Analyzed		E	2/3/2	7,	3+8	in introducti	17.		
Analytical Method	thod		Ei) 354.	1.50% 1.00%	1.064	43011 EPA 581.3 STR 7196	3719 7196		
		10000	ľ	100	and the contract of a designation of	inch haci	U		

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RY Paye / of /	QC Report No.	Laboratory Supervisor Approval:	Colomox K Como and	Difution Faction	Kg) *Moisture
ANALYTICAL RESULTS SUMMARY Environmental Quality Parameters	ı	1	Sample Matrix:	/ / Water (ug/L)	/// Soil (ug/q) (ug/kg)
ngineering-Science	s Job 110. 56528	11ent USAF	roject VJKS	lient No.	ate Collected /1/1/51

Date Received

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Field Sample No.	ole No.	Lab Sample No.	$\mathcal{M}_{\mathcal{L}}$		NU, Phendia TKN C. XI	TKN	は、対		Notes
15KS 25-4	71-541 20-55	15K5 - 28-45 4545457 2-85-128	810	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<0,5	011	<0.0>		
	9-371-58 71-58-1	±011	11.0	77	<0.5	67	₹1,0>		
-107	2-16-18-18-18-18-1	8111	11.7	7	€,0	28	40,13		
	12-011-25 -5-53-1	ben	O. 20. 0		5,0	633	40,17		
15.53-1	1-55-5 5-53-1	1130	71.7	\ \	0,5	889	0,21		
1-82-1	1-6:8-55 5-53-1	1811	2 ()	77	<012	413	t-0		
2-73-1	11-3-5-56-4:8-11	1/32	6.35	3.5	<0,5	72	₹ (C, D		
1. 38. 1.	1-21-55-133-1	5113	0.10	7	071	50	<0,0>		
\$ 5.3 × 12	345-p. 7-75 5 33 1 1	ガベニ	910.3		5'0>	28	<0.17		
Date Analyzed	/z ed	W Q	02	12,43	-4	12/2	(2,2)		
Analytical Method	Method		निर्म अरहा	1 7 58 11.13	7616 413 7456 413 1. OCH 433 1 7 SE 11-13 1. 1978 1975	热数机场	2616 443		

If a moisture is reported, results are presented on a dry-weight basis.

Aboratory Supervigor Approval: Report Paye Dilution Factor CC Report No. 'Moisture Environmental Quality Parameters Soil ('ug/g) (ug/kg) ANALYTICAL RESULTS SUMMARY Water (ug/l) Sample Matrix: Other K PTKS Plant 52578 (1SAF Engineering-Science Date Collected Date Received ES Job No. Client No. Project Client

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は、世	B-40 40.12	<0,0>			€,0	人(),17					ر اوند آ	28 H 493
TKN	840	300	520	30	50 ×	×09					12:00	8.158 493
NU2 Phonelic TKN COTT	510>	<0,5	Q. 4	<0.5	<0.5	40,5					1/2	24 1 3 1 3 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1
NUz		く1×	7 /	ベー×	×	417					47.4	1538 11/3
10N	. 91.0	1,400	pt.0	- ×20.0	C.038x	0.069 1					1. 4	1.4 × 1113
Lab Sample No.	hh11-33-71	5711	9511	1711	87/1	1149					E	
Field Sample No.	PIKS 1-25-6 SS-12-21	1 <5-1,1-4	1.5 8-55	11-64-55	9-11/5-55	17-17-17					Date Analyzed	Analytical Method

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If a moisture is reported, results are presented on a dry-weight basis.

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Jaboratory Supervisor Approval: of ---Report Parje Dilution Edtor OC Report No. (ahmon) Moisture Environmental Quality Parameters Soil (19/9) (19/Kg) ANALYTICAL RESULTS SURMARY Water (ug/L) Sample Matrix: / / Other 1 Date Received 12/195 58/81/81 ES JOB NO. 56528 TASK! Engineering-Science Date Collected Client No. Project Client

Notes											-
はい	0.30	4100 40.17	<0.0>	€1:0>	4000	<010>				\ \ \\S	2817893
TKN	40,5 730	200	120	30	34	73				1/6	E1158 Hd3
NO, Phrylip TKN CIT	20,5	<0,5	40.5	15.07	<0.5	<0.5				70	1.00m fld3
N03	71	<u> </u>	< l	17	7	۲.				\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	261 / 2 Pit X 1.1 [EPA 430.1 [EPA 351.3 EPA 7196
NO	17.0	(, ,)	20.02	Z0.65	70.08	\$0.02				21/20 20/20	l'an les
Lab Sample No.	9511-58-11	£311]	8311	5511	07//	19//				£ O	
Field Sample No.	9511-28-11 12-21-18-18-18-18	7-7'7.5	\$ -36-8	11-67-55	1-71 V-55	12-11-54 11-21				Date Analyzed	Analytical Method

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It & moisture is reported, results are presented on a dry-weight basis.

Results for Site 2 8010, 8020, Metals and Inorganic Parameters

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Repor	t _		

ES Job No. <u>56528</u>	Lab Sample No	12-85-1192
Client U.S. Air Force	Field Sample No.	2-ES-9, SS-1
Project PJKS (Denver	Date Collected	12-19-35
Client No.	Date Received	12-20-35
Laboratory Supervisor Approval:	Date Analyzed	1/2/86
John R Odansi- Sample Matrix?	QC Report No.	PJK5-65
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	. 4	<10		40.9	<u> </u>	•
<pre>bis(2-chloroethoxy) methane</pre>	.12	くね		44.2		1
bis(2-chloroisopropyl) ether	25	125		42.2		:
Bromobenzene	8	<10		29.18		i
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	124		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	:0	<10		11.6		<u> </u>
Chloral	10	<10		18.7	1	
Chlorobenzene	5	<10		26.01	1	
Chloroethane	10	<10		4.51	:	
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58	i	ı
2-Chloroethyl vinyl ether	. 3	<10		19.49	<u> </u>	
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	120		9.37		
Chlorotoluene	.4	<10		37.9	İ	1
Dibromochloromethane	. 2	<10	1	18.68	1	1

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RECORDED INSTITUTION INTERPRETARION

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Co	ncentrati	.on	Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
		400		1 42 00		<u> </u>
Dibromomethane	.1	<10		13.09		
1,2-Dichlorobenzene	3	<10	<u> </u> 	60.10		<u> </u>
1,3-Dichlorobenzene	.6	<10		42.90		<u> </u>
1,4-Dichlorobenzene	.5	<10		37.28	1	
Dichlorodifluoromethane	.30	(30		3.54		<u> </u>
1,1-Dichloroethane	1	<10		11.67	<u> </u>	
1,2-Dichloroethane	1	<10		13.55		<u> </u>
1,1-Dichloroethylene	3	<10		10.31	1	
trans-1,2-Dichloroethylene	. 2	<10		12.35	!	
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24	Ţ	1
1,3-Dichloropropylene	. 6	<10		18.68		
1,1,2,2-Tetrachloroethane	. 7	<10		23.47		1
1,1,1,2-Tetrachloroethane	7ر	<10		21.04	1	
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		!
1,1,2-Trichloroethane	1	<10		18.68	1	
Trichloroethylene	2	<10		17.91	!	
Trichlorofluoromethane	. 1	<10		8.58		1
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	4	<10		3.54		
	<u>!</u>			!	; :	İ
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

Page	1	of	2
Repor	't _		

ES Job No. 56528	Lab Sample No. 12-85-1173	<u>\$</u>
Client U.S. Air Force	Field Sample No. 2-ES-9, SS-2	
ProjectPJKS (Denver	Date Collected 12-F1-45	
Client No.	Date Received	_
Laboratory Supervisor Approval:	Date Analyzed 1/2/86	_
John R Cdams, m	OC Report No. PJKS CS	
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	*
/_ / Other		

Compound	Concentration			Retention Time		Notes
_	Det Lim	Column 1	Column 2 Co	lumn 1	Column 2	
Benzyl chloride	4	<10		40.9		•
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		:
Bromobenzene	3	<10		29 . 18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		; 1
Bromomethane	24	424		2.85		i
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	. <10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		,
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	- 20	120		9.37		
Chlorotoluene	. 4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

12-85-1193

Compound		ncentrati		Retentio	Notes	
·	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09	!	
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	. 6	<10		42.90	:	
1,4-Dichlorobenzene	5	<10		37.28	!	
Dichlorodifluoromethane	30	<3c		3.54	<u>:</u>	<u> </u>
1,1-Dichloroethane	11	<10		11.67	1	ţ
1,2-Dichloroethane	1	<10		13.55	:	<u>.</u>
1,1-Dichloroethylene	3	<10		10.31		!
trans-1,2-Dichloroethylene	2	<10		12.35		İ
Dichloromethane	5	<10		7.50	•	1
1,2-Dichloropropane	1	<10		17.19		!
				17.24		:
1,3-Dichloropropylene	6	<10	<u> </u>	18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47	1	
1,1,1,2-Tetrachloroethane	7	<10		21.04	İ	
Tetrachloroethylene	1	<10		23.47	!	
1,1,1-Trichloroethane	1	<10		14.76	<u>i</u>	
1,1,2-Trichloroethane	1	<10		18.68	1	
Trichloroethylene	2	<10		17.91	:	
Trichlorofluoromethane	1	<10		8.58	!	
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	4	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

PERCENCENT PERSONAL PROPERTY SOCIETY OF PERSONAL GOODINGS CONTINUE

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 .(first of two pages)

Page _	1	of	2
Report	= _		

ES Job No	66528	Lab Sample No	12-85-1194
Clientt	J.S. Air Force	Field Sample No.	2-ES-1 SS-3
ProjectI	JKS (Denver	Date Collected	12-19-95
Client No		Date Received	12-20-85
Laboratory Su	pervisor Approval:	Date Analyzed	1/2/86
Johnn	R Odansin	QC Report No.	PJKS-CS
Sample Matrix	::-)		
// Wat	er (ug/L)	Dilution Factor _	
<u>/X</u> / So:	.1 (ug/g)	*Moisture	*
/ / Otl	ner		

Compound	Concentration			Retenti	on Time Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10	•	40.9	•
<pre>bis(2-chloroethoxy) methane</pre>	12	112		44.2	
<pre>bis(2-chloroisopropyl) ether</pre>	. 25	125		42.2	:
Bromobenzene	8	<10		29.18	,
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	·
Bromomethane	24	<24		2.85	
Carbon tetrachloride	3	<10		15.47	1
Chloroacetaldehyde	10	<10		11.6	: !
Chloral	10	<10		18.7	
Chlorobenzene	. 5	<10		26.01	
Chloroethane	10	<10		4.51	i
Chloroform	11	<10		13.01	
1-Chlorohexane	2	<10	<u> </u>	26.58	•
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	. 2	<10		1.95	
Chloromethyl methyl ether	20			9.37	
Chlorotoluene	4	<10		37.9	•
Dibromochloromethane	2	<10		18.68	:

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NAMES AND DESCRIPTION OF THE PROPERTY AND PARTY OF

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Concentration			Retentio	Retention Time		
	Det Lim	Column 1	Column	2 Column 1	Column 2		
Dibromomethane		<10		13.09	1		
1,2-Dichlorobenzene	3	<10		60.10			
1,3-Dichlorobenzene	6	<10		42.90		:	
1,4-Dichlorobenzene	. 5	<10		1 37.28			
Dichlorodifluoromethane	30	<30	!	3.54			
1,1-Dichloroethane	1	<10		11.67	1	4	
1,2-Dichloroethane	11	<10		13.55	:	1	
1,1-Dichloroethylene	3	<10	1	10.31		:	
trans-1,2-Dichloroethylene	2	<10		12.35			
Dichloromethane	5	<10	ı	7.50	:		
1,2-Dichloropropane	1	<10		17.19	•	į	
			1	17.24	:	:	
1,3-Dichloropropylene	6	<10	<u> </u>	18.68	i	<u> </u>	
1,1,2,2-Tetrachloroethane	7	<10	1	23.47	!	1	
1,1,1,2-Tetrachloroethane	7	<10	<u> </u>	21.04	ı	ļ	
Tetrachloroethylene	1	<10	1	23.47		<u> </u>	
1,1,1-Trichloroethane	1	<10	<u> </u>	14.76		İ	
1,1,2-Trichloroethane	11	<10	<u>i</u>	18.68	1	1	
Trichloroethylene	. 2	<10	!	17.91		1	
Trichlorofluoromethane	1	<10	•	8.58		<u>i</u>	
Trichloropropane	2	<10	!	23.01	_		
Vinyl chloride	4	<10	!	3.54		į .	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Report	_		

ES Job No. 56528

Client U.S. Air Force

Project PJKS (Denver

Client No.

 Lab Sample No.
 12-85-1195

 Field Sample No.
 2-ES-9, 55-4

 Date Collected
 /2-19-95

 Date Received
 /2-20-85

 Date Analyzed
 1/2/86

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Laboratory Supervisor Approval:

OC Report No. PTKS CS

Sample Matrix:

/_/ Water (ug/L)

Dilution Factor ____

/X / Soil (ug/g)

*Moisture ____

/_/ Other ____

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		'
<pre>bis(2-chloroethoxy) methane</pre>	12	412	-	44.2		,
bis(2-chloroisopropyl) ether	25	L 25		42.2		
Bromobenzene	8	<10		29.18	,	
Bromodichloromethane	2	<10		15.69	1	
Bromoform	4	<10		21.24	1	
Bromomethane	24	/2 4		2.85	1	
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	. 10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	. 1	<10		13.01	1	
1-Chlorohexane	2	<10		26.58	•)
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	120		9.37		
Chlorotoluene	. 4	<10)	37.9		
Dibromochloromethane	2	·<10	<u>i</u>	18.68		

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	logenated SW N	RESULTS Volatile Hethod 80 of two	e Organics 10		12-85-	1155
Compound		ncentrat		Retentio		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	İ
Dibromomethane	1	<10		13.09	:	İ
1,2-Dichlorobenzene	. 3	<10	1	60.10	:	1
1,3-Dichlorobenzene	6	<10		42.90		•
1,4-Dichlorobenzene	5	<10	!	37.28		
Dichlorodifluoromethane	30	<30		3.54		i
1,1-Dichloroethane	1	<10		11.67	1	:
1,2-Dichloroethane	. 1	<10		13.55	· ·	
1,1-Dichloroethylene	. 3	<10		10.31		i
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	3	<10	!	7.50		,
1,2-Dichloropropane	1	<10	ļ	17.19		!
				17.24	1	!
1,3-Dichloropropylene	6	<10		18.68	!	1
1,1,2,2-Tetrachloroethane	7	<10		23.47	!	1
1,1,1,2-Tetrachloroethane	7	<10		21.04		I
Tetrachloroethylene	1	<10	1	23.47	:	1
1,1,1-Trichloroethane	. 1	<10		14.76	t	!
1,1,2-Trichloroethane	- 1	<10	i !	18.68		1
Trichloroethylene	2	<10	!	17.91	1	i i
Trichlorofluoromethane	1	<10	!	8.58	!	
Trichloropropane	2	<10	<u> </u>	23.01		!
Vinyl chloride	. 4	<10		3.54	:	1 -
	: 		!	•		<u> </u>
		<u> </u>	!		1	!
		<u> </u>	<u> </u>			<u> </u>
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		<u>:</u>				
* If % moisture is reported	d, result	s are pro	esented on	a dry-we	eight bas	is.
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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Repor	t _		

ES Job No56528	Lab Sample No	12-55-1196
Client U.S. Air Force	Field Sample No.	2-ES-9, SS 5
Project PJKS (Denver	Date Collected	12-17-95
Client No	Date Received	12-20-35
Laboratory Supervisor Approval:	Date Analyzed	1/2/86
Form R. Colamon Sample Matrix:	QC Report No.	PJKS 05
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
// Other		
Johnne R. Colombia Sample Matrix: \(\frac{\lambda}{\text{X} \infty} \) Water (ug/L) \(\frac{\text{X}}{\text{X}} \) Soil (ug/g)	OC Report No.	

Compound		Concentrat	ion Retention	Time Notes
	Det Lim	Column 1	Column 2 Column 1 Col	umn 2
Benzyl chloride	1	<10	40.9	· ·
bis(2-chloroethoxy) methane	12	<12	. 44.2	
bis(2-chloroisopropyl) ether	25	رع د	42.2	
Bromobenzene	. в	<10	29.18	
Bromodichloromethane	2	<10	15.69	
Bromoform	4	<10	21.24	
Bromomethane	24	124	2.85	
Carbon tetrachloride	. 3	<10	15.47	
Chloroacetaldehyde	10	<10	11.6	
Chloral	10	<10	18.7	
Chlorobenzene	. 5	<10	26.01	
Chloroethane	10	<10	4.51	
Chloroform	1	<10	13.01	
1-Chlorohexane	. 2	<10	26.58	•
2-Chloroethyl vinyl ether	3	<10	19.49	
Chloromethane	2	<10	1.95	
Chloromethyl methyl ether	20	120	9.37	
Chlorotoluene	4	<10	37.9	!
Dibromochloromethane	2	<10	18.68	1

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	<u> </u>	Concentration			Retention Time	
	Det Lim	Column 1	Column 2	Column 1	Column 2	i
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10	1	60.10		İ
1,3-Dichlorobenzene	5	<10	1	42.90		:
1,4-Dichlorobenzene	. 5	<10	<u> </u>	37.28		
Dichlorodifluoromethane	30	430		3.54		:
1,1-Dichloroethane	: 1	<10	<u> </u>	11.67	;	·
1,2-Dichloroethane	. 1	<10		13.55	!	;
1,1-Dichloroethylene	<u> </u>	<10	 	10.31	1	i
trans-1,2-Dichloroethylene	2	<10		12.35		i
Dichloromethane	5	<10	!	7.50		
1,2-Dichloropropane	. ,1	<10		17.19	:	İ
	1			17.24	!	
1,3-Dichloropropylene	5	<10		18.68	<u> </u>	<u> </u>
1,1,2,2-Tetrachloroethane	7	<10		23.47)	
1,1,1,2-Tetrachloroethane	7	<10	!	21.04		
Tetrachloroethylene	i i	<10		23.47	<u> </u>	!
1,1,1-Trichloroethane	i 1	<10		14.76	;	
1,1,2-Trichloroethane	1	<10		18.68		1
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58	!	
Trichloropropane	ʻ . 2	<10		23.01	!	1
Vinyl chloride	_4	<10	1	3.54		!
	!		<u> </u>	:		1
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

Page	1	of	2
Repor	t_		

ES Job No56528	Lab Sample No
Client U.S. Air Force	Field Sample No. 2-ES-11, SS-1
Project PJKS (Denver	Date Collected
Client No.	Date Received /-2-86
Laboratory Supervisor Approval:	Date Analyzed 1/6/86
Johnny R. adamoin Sample Matrix?	QC Report No. PJKS -C7
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/_/ Other	

Compound	C	Concentration		Retenti	on Time	Notes
_	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		ł
bis(2-chloroethoxy) methane	12	<12		44.2		1
bis(2-chloroisopropyl) ether	25	(25		42.2		
Bromobenzene	88	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24	1	
Bromomethane	24	1		2.85	1	
Carbon tetrachloride	3	<10	<u> </u>	15.47		<u> </u>
Chloroacetaldehyde	10	<10	<u> </u>	11.6	<u> </u>	!
Chloral	10	<10	<u> </u>	18.7	<u> </u>	<u> </u>
Chlorobenzene	5	<10	<u> </u>	26.01		
Chloroethane	10	<10		4.51	<u> </u>	: !
Chloroform	11	<10		13.01		!
1-Chlorońexane	2	<10		26.58)
2-Chloroethyl vinyl ether	3	<10	<u> </u>	19.49	<u> </u>	!
Chloromethane	2	<10		1.95	1	<u> </u>
Chloromethyl methyl ether	20	Lao		9.37		<u> </u>
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10	<u> </u>	18.68	<u> </u>	

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound		ncentrati		Retentio		Notes
	Det Lim	Column 1	Column	2 Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90	!	
1,4-Dichlorobenzene	5	<10	ļ	37.28	: !	
Dichlorodifluoromethane	_30	حرع ه		3.54		
1,1-Dichloroethane	1	<10		11.67		<u> </u>
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		<u> </u>
trans-1,2-Dichloroethylene	. 2	<10		12.35	! 	
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19	! ·	<u>i</u>
			}	17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	11_	<10		14.76		
1,1,2-Trichloroethane	1	<10	<u> </u>	18.68	<u> </u>	
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10	<u> </u>	8.58	<u> </u>	
Trichloropropane	2	<10		23.01	<u> </u>	
Vinyl chloride	4	<10		3.54		
					<u> </u>	
		<u> </u>	<u> </u>			
	<u> </u>	!			<u>i</u>	<u> </u>
	!	 	<u> </u>	<u> </u>	<u>i</u>	
	<u> </u>	!	!	!	! !	<u> </u>

^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics · SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No	1-86-1003
Client U.S. Air Force	Field Sample No.	2-ES-11, SS-Z
Project PJKS (Denver)	Date Collected	1-1-86
Client No.	Date Received	1-2-86
Laboratory Supervisor Approval:	Date Analyzed	1/6/86
Johnny R adamson Sample Matrix:	QC Report No.	PJKS -07
/_/ Water (ug/L)	Dilution Factor _	
<u>/X</u> / Soil (ug/g)	*Moisture	
/_/ Other		

Compound	С	Time Notes		
	Det Lim	Column 1	Column 2 Column 1 Co	olumn 2
Benzyl chloride	· 4	<10	40.9	•
<pre>bis(2-chloroethoxy) methane</pre>	12	1/12	44.2	
bis(2-chloroisopropyl) ether	25	LYS	42.2	
Bromobenzene	8	<10	29.18	ļ
Bromodichloromethane	2	<10	15.69	
Bromoform	4	<10	21.24	
Bromomethane	24	1	2.85	
Carbon tetrachloride	3	<10	15.47	
Chloroacetaldehyde	10	<10	11.6	i
Chloral	10	<10	18.7	
Chlorobenzene	5	<10	26.01	•
Chloroethane	10	<10	4.51	
Chloroform	1	<10	13.01	1
1-Chlorohexane	2	<10	26.58	ı
2-Chloroethyl vinyl ether	3	<10	19.49	!
Chloromethane	2	<10	1.95	
Chloromethyl methyl ether	20	<20	9.37	
Chlorotoluene	4	<10	37.9	
Dibromochloromethane	2	<10	18.68	1

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Compound		ncentrati		Retentio		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90	:	
1,4-Dichlorobenzene	5	<10		37.28	· ·	!
Dichlorodifluoromethane	30	430		3.54	1	<u> </u>
1,1-Dichloroethane	11	<10		11.67	<u> </u>	!
1,2-Dichloroethane	11_	<10		13.55	1	<u> </u>
1,1-Dichloroethylene	3	<10		10.31		!
trans-1,2-Dichloroethylene	2	<10	<u> </u>	12.35	i	<u> </u>
Dichloromethane	55	<10	!	7.50		!
1,2-Dichloropropane	<u> </u>	<10		17.19		}
				17.24		
1,3-Dichloropropylene	66_	<10		18.68	Ì	<u> </u>
1,1,2,2-Tetrachloroethane	7	<10	}	23.47	!	
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47	1	
1,1,1-Trichloroethane	11	<10		14.76	1	
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91	!	
Trichlorofluoromethane	11	<10		8.58	<u> </u>	
Trichloropropane	2	<10		23.01	1]
Vinyl chloride	4	<10		3.54		
	!			1		
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			<u> </u>		<u> </u>	
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^{*} If * moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No.	_56528	Lab Sample No	1-86-1003
Client	U.S. Air Force	Field Sample No.	2-ES-11, SS-3
Project	PJKS (Denver	Date Collected	1-1-86
Client No.		Date Received	1-2-86
Laboratory	Supervisor Approval:	Date Analyzed	1/6/86
John Sample Mat	my R. adamon	QC Report No.	PJKS-07
-	Water (ug/L)	Dilution Factor	
<u>/x</u> /	Soil (ug/g)	*Moisture	
/ /	Other		

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	1
Benzyl chloride	.4	<10		40.9		9
<pre>bis(2-chloroethoxy) methane</pre>	/2	<12		44.2		
bis(2-chloroisopropyl) ether	25	\25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	224		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6	!	
Chloral	10	<10		18.7	!	:
Chlorobenzene	. 5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	. 1	<10		13.01		i
1-Chlorohexane	2	<10	<u> </u>	26.58		1
2-Chloroethyl vinyl ether	3	<10	<u> </u>	19.49		1
Chloromethane	2	<10		1.95		!
Chloromethyl methyl ether	. 20	(20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68	1	

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Compound		oncentrat:		Notes
	Det Lim	Column 1	Column 2 Column 1 Column 2	
Dibromomethane	1	<10	13.09	
1,2-Dichlorobenzene	3	<10	60.10	
1,3-Dichlorobenzene	6	<10	42.90	
1,4-Dichlorobenzene	5	<10	37.28	
Dichlorodifluoromethane	30	C30	3.54	
1,1-Dichloroethane	11	<10	11.67	!
1,2-Dichloroethane	1	<10	13.55	
1,1-Dichloroethylene	3	<10	10.31	
trans-1,2-Dichloroethylene	2	<10	12.35	
Dichloromethane	5	<10	7.50	
1,2-Dichloropropane	1	<10	17.19	1
			17.24	i
1,3-Dichloropropylene	6	<10	18.68	
1,1,2,2-Tetrachloroethane	7	<10	23.47	
1,1,1,2-Tetrachloroethane	7	<10	21.04	
Tetrachloroethylene	1	<10	23.47	
1,1,1-Trichloroethane	1 1	<10	14.76	
1,1,2-Trichloroethane	1	<10	18.68	
Trichloroethylene	2	<10	17.91	
Trichlorofluoromethane	1	<10	8.58	
Trichloropropane	. 2	<10	23.01	
Vinyl chloride	4	<10	3.54	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No.	56528	Lab Sample No.	1-86-1004
Client	U.S. Air Force	Field Sample No.	2-ES-11, SS-4
Project	PJKS (Denver	Date Collected	1-1-86
Client No.		Date Received	1-2-86
Laboratory	Supervisor Approval:	Date Analyzed	1/6/86
Sample Mati	m R. adamson	QC Report No	PJKS-07
/ \	Water (ug/L)	Dilution Factor _	
/x /	Soil (ug/g)	*Moisture	8
//	Other		

Compound	Co	Concentration			Retention Time	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		, , , ,
bis(2-chloroethoxy) methane	12	<12		44.2		!
bis(2-chloroisopropyl) ether	25	425		42.2		
Bromobenzene	. 8	<10_	<u> </u>	29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	424		2.85		
Carbon tetrachloride	3	<10		15.47	<u></u>	
Chloroacetaldehyde	10	<10		11.6		·
Chloral	10	<10		18.7	ļ	
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10	<u> </u>	4.51		
Chloroform	111	<10		13.01	ļ	•
1-Chlorohexane	2	<10	<u> </u>	26.58	<u> </u>	, ,
2-Chloroethyl vinyl ether	3	<10	<u> </u>	19.49		·
Chloromethane	2	<10		1.95	<u> </u>	1
Chloromethyl methyl ether	20	220	<u> </u>	9.37		!
Chlorotoluene	4_	<10		37.9		
Dibromochloromethane	2	<10		18.68	1	1

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Co	oncentrati	ion	Retentio	on Time	Notes
·	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	11	<10		13.09		
1,2-Dichlorobenzene	· 3	<10		60.10		
1,3-Dichlorobenzene	66	<10		42.90	1	
1,4-Dichlorobenzene	5	<10		37.28	! !	
Dichlorodifluoromethane	30	430		3.54	}	
1,1-Dichloroethane	1	<10		11.67		İ
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31	1	
trans-1,2-Dichloroethylene	2	<10		12.35	!	
Dichloromethane	5	<10		7.50	1	
1,2-Dichloropropane	1	<10		17.19	!	1
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10]	23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1.	<10		14.76		
1,1,2-Trichloroethane	1. 1	<10		18.68		
Trichloroethylene	i 2	<10		17.91	<u>‡</u>	
Trichlorofluoromethane	1 1	<10		8.58		
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	4	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. 56528	Lab Sample No.	1-86-1005
Client U.S. Air Force	Field Sample No.	2-ES-11, SS-5
Project PJKS (Denver	Date Collected	1-1-86
Client No.	Date Received	1-2-86
Laboratory Supervisor Approval:	Date Analyzed	16/86
Sample Matrix: R. Cod amon	QC Report No.	PJKS-07
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	Concentration			Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	<u> </u>
Benzyl chloride	4	<10		40.9	•	
<pre>bis(2-chloroethoxy) methane</pre>	12	د اک		44.2		
<pre>bis(2-chloroisopropyl) ether</pre>	25	425		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	. 4	<10		21.24		
Bromomethane	24	LA4		2.85		
Carbon tetrachloride	. 3	<10		15.47	1	i
Chloroacetaldehyde	10	<10		11.6	1	
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	120		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Concentration			Retentio	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichloropenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90	1	
1,4-Dichlorobenzene	5	<10	<u> </u>	37.28	!	<u> </u>
Dichlorodifluoromethane	30	130		3.54	!	
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10	 	13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35	!	
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19	1	ĺ
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	. 7	<10		21.04		
Tetrachloroethylene	. 1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68	<u> </u>	
Trichloroethylene	2	<10		17.91	İ	
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01	1	
Vinyl chloride	4	<10		3.54		
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	<u> </u>		1	!	:	

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No	1-86-1006
ClientU.S. Air Force	Field Sample No.	2-ES-13, 55-1
Project PJKS (Denver	Date Collected	1-1-86
Client No.	Date Received	1-2-86
Laboratory Supervisor Approval:	Date Analyzed	1/6/86
Sample Matrix: R Columnian	QC Report No	PJK5-07
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	Concentration			Retenti	Notes	
-	Det Lim	Column 1	Column	2 Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2		
<pre>bis(2-chloroisopropyl) ether</pre>	25	< 25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	. 24	424		2.85		
Carbon tetrachloride	. 3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7	<u> </u>	
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		_
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	. 2	<10		1.95		
Chloromethyl methyl ether	20	८२०		9.37	!	
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10	1	18.68		

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90	•	
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55	1	
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	. 2	<10		12.35	ļ .	
Dichloromethane	. 5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19	!	
	İ			17.24		1
1,3-Dichloropropylene	. 6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10]	23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	11_	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	11	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01	1	
Vinyl chloride	4	<10		3.54		
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	<u> </u>		<u> </u>		<u>i</u>	
	<u> </u>			<u> </u>	1	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No	1-86-1007
Client U.S. Air Force	Field Sample No.	2-ES-13,55-2
Project PJKS (Denver	Date Collected	1-1-86
Client No.	Date Received	1-2-86
Laboratory Supervisor Approval:	Date Analyzed	1/7/86
Johnny R. Colomon Sample Matrix:	QC Report No.	PJKS-07
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	<u> </u>
/ / Other		

Compound	Concentration			Retention Time		Notes
-	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2		
<pre>bis(2-chloroisopropyl) ether</pre>	25	125		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	424		2.85		
Carbon tetrachloride	. 3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10 ·		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	120		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Co	oncentrati	on	Retentio	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	. 1	<10		13.09	i	
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	66	<10		42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	11	<10		11.67		
1,2-Dichloroethane	. 1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35	ļ.	
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	. 1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	. 7	<10		23.47		}
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	. 1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No.	<u>}_</u>
Client U.S. Air Force	Field Sample No. 2-ES-13, 55-3	
Project PJKS (Denver	Date Collected	
Client No.	Date Received /-2-86	
Laboratory Supervisor Approval:	Date Analyzed 1/7/86	
Johnny R. Odanson Sample Matrix:	QC Report No. PJKS-07	
/_/ Water (ug/L)	Dilution Factor	
<u>/X </u>	*Moisture	-8
/_/ Other		

Compound	Concentration			Retention Time		
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	. 4	<10		40.9	•	
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	225		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	. 2	<10		15.69		
Bromoform	4	<10		21.24	•	
Bromomethane	24	<24		2.85		_
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	. 10	<10		11.6		
Chloral	. 10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51	•	
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	420		9.37		
Chlorotoluene	. 4	<10		37.9		
Dibromochloromethane	· 2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Co	oncentrati	on	Retentio	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10	1 	60.10		
1,3-Dichlorobenzene	. 6	<10		42.90		
1,4-Dichlorobenzene	5	<10_		37.28	•	
Dichlorodifluoromethane	30	630		3.54	1	
1,1-Dichloroethane	11	<10		11.67	1	
1,2-Dichloroethane	1	<10		13.55	1	
1,1-Dichloroethylene	3	<10		10.31	•	
trans-1,2-Dichloroethylene	2	<10		12.35	i	
Dichloromethane	5	<10	1	7.50	!	-
1,2-Dichloropropane	1	<10		17.19	1	-
	! 	}	!	17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10	1	23.47	!	
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	11	<10		14.76		
1,1,2-Trichloroethane	11	<10		18.68	1	
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	4	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. 56528	Lab Sample No.	86-1009
Client U.S. Air Force	Field Sample No. $2-E$	5-14, 55-1
Project PJKS (Denver	Date Collected	1-1-86
Client No.	Date Received	1-2-86
Laboratory Supervisor Approval:	Date Analyzed 1/7	186
John R. adaman Sample Matrix:	QC Report No. PJA	(5-07
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/_/ Other		

Compound	Concentration			Retenti	Retention Time Note	
•	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	-4	<10		40.9	•	
<pre>bis(2-chloroethoxy) methane</pre>	12	12		44.2		
bis(2-chloroisopropyl) ether	25	425		42.2		
Bromobenzene	8	<10		29.18	!	
Bromodichloromethane	2	<10	1	15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	124		2.85	l ;	
Carbon tetrachloride	. 3	<10		15.47	:	
Chloroacetaldehyde	10	<10	<u> </u>	11.6	! !	
Chloral	10	<10		18.7		
Chlorobenzene	5	<10	<u> </u>	26.01		
Chloroethane	. 10	<10	1	4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58	•	
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	420		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10	1	18.68		

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Compound	Concentration		Retention Time		Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10	1	
1,3-Dichlorobenzene	6	<10		42.90	1	
1,4-Dichlorobenzene	5	<10		37.28	,	;
Dichlorodifluoromethane	30	230		3.54		
1,1-Dichloroethane	1	<10	<u> </u>	11.67	1	!
1,2-Dichloroethane	、 1	<10		13.55		!
1,1-Dichloroethylene	3	<10		10.31	<u> </u>	!
trans-1,2-Dichloroethylene	. 2	<10		12.35	:	
Dichloromethane	5	<10	<u> </u>	7.50	1	!
1,2-Dichloropropane	1	<10		17.19	<u> </u>	!
	Í		1	17.24	[l i
1,3-Dichloropropylene	3	<10		18.68		!
1,1,2,2-Tetrachloroethane	. 7	<10	<u> </u>	23.47	<u> </u>	
1,1,1,2-Tetrachloroethane	7	<10		21.04	<u> </u>	
Tetrachloroethylene	1 1	<10		23.47		
1,1,1-Trichloroethane	11	<10	1	14.76	<u> </u>	
1,1,2-Trichloroethane	i 1	<10		18.68	i !	<u> </u>
Trichloroethylene	2	<10	<u> </u>	17.91	<u> </u>	<u> </u>
Trichlorofluoromethane	111	<10		8.58	i 	
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	4	<10	<u> </u>	3.54	i	
	!	<u> </u>		!	<u> </u>	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No	1-86-1010
Client _	U.S. Air Force	Field Sample No.	2-ES-14, SS-2
Project _	PJKS (Denver	Date Collected	
Client No.	•	Date Received	1-2-86
Laboratory	Y Supervisor Approval:	Date Analyzed	1/7/86
Sample Mat	2 Colamon	QC Report No.	PJKS-07
/	Water (ug/L)	Dilution Factor _	
<u>/x</u> _/	Soil (ug/g)	*Moisture	*
/_/	Other		··

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2		,
bis(2-chloroisopropyl) ether	25	حد ح		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	. 4	<10		21.24		
Bromomethane .	24	<24		2.85	!	
Carbon tetrachloride	3	<10		15.47		1
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51	i	:
Chloroform	. 1	<10		13.01		
1-Chlorohexane	2	<10		26.58)
2-Chloroethyl vinyl ether	. 3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	120		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10	1	18.68		

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Compound		ncentrati		Retentio		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	. 11	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90	<u>:</u>	
1,4-Dichlorobenzene	. 5	<10		37.28	<u> </u>	<u> </u>
Dichlorodifluoromethane	30	<30		3.54	<u>}</u>	
1,1-Dichloroethane	1	<10		11.67	<u> </u>	<u> </u>
1,2-Dichloroethane	1	<10		13.55		<u> </u>
1,1-Dichloroethylene	3	<10		10.31	<u> </u>	<u> </u>
trans-1,2-Dichloroethylene	2	<10		12.35	<u> </u>	
Dichloromethane	5	<10		7.50		!
1,2-Dichloropropane	. 1	<10		17.19	i	
				17.24	1	i
1,3-Dichloropropylene	6	<10		18.68		<u> </u>
1,1,2,2-Tetrachloroethane		<10		23.47	<u> </u>	
1,1,1,2-Tetrachloroethane	. 7	<10		21.04		
Tetrachloroethylene	31	<10		23.47		
1,1,1-Trichloroethane	11	<10		14.76	1	
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	. 2	<10		23.01	<u> </u>	
Vinyl chloride	1 4	<10		3.54		
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	<u> </u>	<u>!</u>	·	1		

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. <u>56528</u>	Lab Sample No	1-36-1011
Client U.S. Air Force	Field Sample No.	2-ES-14, 55-3
ProjectPJKS (Denver	Date Collected _	1-1-96
Client No.	Date Received · _	1-2-9t
Laboratory Supervisor Approval:	Date Analyzed	1/7/86
Johnen Padanon	QC Report No.	PJKS-03
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	*
/_/ Other		

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column	Column 2	
Benzyl chloride	4	.<10		40.9		
<pre>bis(2-chloroethoxy) methane</pre>	12	612		44.2		
bis(2-chloroisopropyl) ether *	25	{25		42.2		
Bromobenzene	- 8	<10		29.18		
Bromodichloromethane	2	<10		15.69	1	
Bromoform	4	<10		21.24		
Bromomethane	24	224		2.85		
Carbon tetrachloride	3 .	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01	1	
Chloroethane	10	<10		4.51	1	
Chloroform	11	<10		13.01		
1-Chlorohexane	2	<10		26.58	j)
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	420		9.37	<u> </u>	
Chlorotoluene	. 4	<10		37.9	!	
Dibromochloromethane	2	<10		18.68		

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Compound	Co	oncentrati	on	Retention Time	Notes
	Det Lim	Column 1	Column 2	Column 1 Column	2
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	
1,3-Dichlorobenzene	6	<10		42.90	
1,4-Dichlorobenzene	5	<10		37.28	
Dichlorodifluoromethane	30	<30	<u> </u>	3.54	
1,1-Dichloroethane	· ·1	<10		11.67	
1,2-Dichloroethane	1	<10		13.55	
1,1-Dichloroethylene	3	<10	 	10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	į .
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	11	<10		17.19	
				17.24	:
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	. <u>7</u>	<10	•	23.47	
1,1,1,2-Tetrachloroethane	. 7	<10		21.04	
Tetrachloroethylene	<u> </u>	<10		23.47	
1,1,1-Trichloroethane	1	<10		14.76 :	
1,1,2-Trichloroethane	11	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	. 2	<10		23.01	1
Vinyl chloride	4	<10		3.54	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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Lab Sample No	1-86-1012
Field Sample No.	2-65-14,554
Date Collected	1-1-86
Date Received	1-2-86
Date Analyzed	17186
QC Report No.	PJKS-03
Dilution Factor _	
*Moisture	
	Field Sample No. Date Collected Date Received Date Analyzed OC Report No. Dilution Factor

Compound	Concentration			Retention Time Notes		
_	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10	İ	40.9	•	
<pre>bis(2-chloroethoxy) methane</pre>	12	(12		44.2	;	
<pre>bis(2-chloroisopropyl) ether</pre>	25	<25		42.2		
Bromobenzene	9	<10		29.18	1	
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24	İ	
Bromomethane	24	Kky		2.85	1	
Carbon tetrachloride	3	<10		15.47	1	
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7	:	
Chlorobenzene	5	<10		26.01	1	
Chloroethane	10	<10		4.51		
Chloroform	11	<10		13.01	<u>i</u>	
1-Chlorohexane	2	<10		26.58	i	
2-Chloroethyl vinyl ether	3	<10		19.49	:	
Chloromethane	2	<10		1.95	!	
Chloromethyl methyl ether	20	/ 20		9.37		
Chlorotoluene	4	<10		37.9	•	
Dibromochloromethane	2	<10	į	18.68	• :	

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Compound	Concentration			Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10	· i	13.09		
1,2-Dichlorobenzene	3	<10		60.10	i 	
1,3-Dichlorobenzene	6	<10		42.90	:	
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	430		3.54	!	į
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	11	<10		13.55	1	
1,1-Dichloroethylene	3	<10		10.31		-
trans-1,2-Dichloroethylene	2	<10		12.35		ļ
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19	1	İ
	•		 	17.24		!
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47	!	
1,1,1,2-Tetrachloroethane	7	<10		21.04	Ì	
Tetrachloroethylene	1	<10		23.47	!	1
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	. 1	<10		18.68		
Trichloroethylene	2	<10		17.91		!
Trichlorofluoromethane	1	<10	1	8.58	:	
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	4	<10		3.54	i	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. <u>56528</u>	Lab Sample No.	1-8c-1613
Client U.S. Air Force	Field Sample No.	2-ES-14,55-5
Project PJKS (Denver	Date Collected	1-1-86
Client No.	Date Received	/ - 2-86
Laboratory Supervisor Approval:	Date Analyzed	17/86
Johnson, R Cidamon	QC Report No.	PJKS-CS
Sample Matrix:		
/ / Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/_/ Other	·	

Compound	C	oncentrat	ion	Retenti	on Time Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2:
Benzyl chloride	. 4	<10		40.9	•
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2	
<pre>bis(2-chloroisopropyl) ether</pre>	25	(25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	!
Bromomethane	24	/24		2.85	
Carbon tetrachloride	3	<10		15.47	<u> </u>
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	. 10	<10		4.51	!
Chloroform	11	<10		13.01	
1-Chlorohexane	2	<10		26.58	•
2-Chloroethyl vinyl ether	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	لاءِ م		9.37	
Chlorotoluene	4	<10	1	37.9	
Dibromochloromethane	2	<10	1	18.68	

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Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	ļ
Dibromomethane	11	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10	<u> </u>	1
1,3-Dichlorobenzene	6	<10		42.90	:	
1,4-Dichlorobenzene	5	<10		37.28		r
Dichlorodifluoromethane	30	430		3.54		i
1,1-Dichloroethane	1	<10		11.67	i	!
1,2-Dichloroethane	1	<10		13.55		;
1,1-Dichloroethylene	3	<10		10.31	Í	!
trans-1,2-Dichloroethylene	2	<10		12.35	4	
Dichloromethane	5	<10		7.50	i	!
1,2-Dichloropropane	1	<10		17.19	!	
				17.24		
1,3-Dichloropropylene	- 6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47	!	
1,1,1-Trichloroethane	1	<10		14.76	1 1	
1,1,2-Trichloroethane	1	<10		18.68	i	
Trichloroethylene	. 2	<10		17.91	!	
Trichlorofluoromethane	1	<10		8.58	İ	
Trichloropropane	2	<10		23.01	1	
Vinyl chloride	4	<10		3.54	;	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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ES Job No.	56528	Lab Sample No	12-85-1192
Client	U.S. Air Force	Field Sample No.	2-Es-955-1, 0-2
Project	FJKS (Denver)	Date Collected	12/14/55
Client No.		Date Received	12/20/95
Laboratory	Supervisor Approval:	Date Analyzed	1/2/86
Qohnn Sample Matr	n R adamson	OC Report No	56528-5
<u>/</u> / W	Nater (ug/L)	Dilution Factor _	
<u>/x</u> _/ s	Soil (ug/g)	*Moisture	*
/ / c	ither		

Compound	C	oncentrati	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	. 4	<10		2.26		
Chlorobenzene	. 4	<10	İ	16.46	!	
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	- 6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		
	• .					

^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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ES Job No. 56528	Lab Sample No	12-85-1193
Client U.S. Air Force	Field Sample No.	2-ES-9 SS-3, 2-4
ProjectFJKS (Denver)	. Date Collected	12/19/15
Client No.	Date Received	12/36/85
Laboratory Supervisor Approval:	Date Analyzed	1/2/86
Johnn R. adams.	OC Report No.	56528-5
/_/ Water (ug/L)	Dilution Factor _	
<pre>/X / Soil (ug/g)</pre>	*Moisture	
/ / Other		

Compound	c	oncentrat:	ion	Retenti	on_Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	_4	<10		2.26		
Chlorobenzene	. 4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No.	12-85-1194
Client U.S. Air Force	Field Sample No.	2-ES-9 SS-3 5-7
ProjectPJKS (Denver)	Date Collected	12/19/55
Client No.	Date Received	12/20/85
Laboratory Supervisor Approval:	Date Analyzed	1/2/86
Johnne R. adamon Sample Matrix	OC Report No.	<u> 56528 - 5</u>
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	%
/_/ Other		

Compound		C	oncentrati	ion	Retenti	Retention Time	
		Lim	Column 1	Column 2	Column 1	Column 2	
Benzene		.4	<10		2.26		
Chlorobenzene		.4	<10		16.46		
1,2-Dichlorobenzene		8	<10		27.93		
1,3-Dichlorobenzene		8	<10		26.40		
1,4-Dichlorobenzene		ნ	<10		22.51		
Ethyl benzene		1	<10		7.18		
Toluene		4	<10		5.47		
Xylenes (Dimethyl benzene)		4	<10		15.26 16.91 17.77		
					 		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No	12-85-1195
Client _	U.S. Air Force	Field Sample No.	2-ES-955-4 9-11
Project _	PJKS (Denver)	Date Collected	12/19/85
Client No.	·	Date Received	12/20/55
Laboratory	y Supervisor Approval:	Date Analyzed	1/2/86
Sample Ma:	Erid Comon	OC Report No.	56528-5
//	Water (ug/L)	Dilution Factor _	
<u>/x</u> _/	Soil (ug/g)	*Moisture	<u> </u>
/ /	Other		

Compound		oncentrat.	ion	Retention Time		Notes
	Det Lin	Column 1	Column 2	Column 1	Column 2	
Benzene	14	<10		2.26		
Chlorobenzene	4	<10	<u> </u>	16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene		<10		26.40		
1,4-Dichlorobenzene		<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	`4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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ES Job No.	56528	Lab Sample No. $\frac{12-2}{2}$	5-1196
Client	U.S. Air Force	Field Sample No. 2-ES-	1 55-5 14-11
Project	FJKS (Denver)	Date Collected 121,	<u> </u>
Client No.		Date Received 12/2	c185
Laboratory	Supervisor Approval:	Date Analyzed 1/2/9	26
Johnne Sample Matz	R adamoin	OC Report No. <u>56528</u>	-5
/_/ V	Water (ug/L)	Dilution Factor	
<u>/x</u> _/ s	Soil (ug/g)	*Moisture	<u> </u>
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Compound	C	oncentrat	ion	Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10	ļ	16.46		
1,2-Dichlorobenzene	8	<10		27.93	<u> </u>	·
1,3-Dichlorobenzene	۔8	<10		26.40		
1,4-Dichlorobenzene ·	. ,6	<10	<u> </u>	22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	. 4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10 [']		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No
Client U.S. Air Force	Field Sample No. 2-85-1, 55-1, 0-2
Project PJKS (Denver)	Date Collected
Client No.	Date Received 1/2/86
Laboratory Supervisor Approval:	Date Analyzed 1/6/86
Johnny P. adamon Sample Matrix:	OC Report No. 56528-7
/_/ Water (ug/L)	Dilution Factor
<u>/X</u> / Soil (ug/g)	*Moisture %
/_/ Other	

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·)		Aromatic V	RESULTS SUM Colatile Orga Method 8020		Page _ (c	of .
ડ ા	ES Job No. 56528		Lab Sa	ample No.	1-86-10	יר ,
	Client U.S. Air Force		Field	Sample No. 2	ES-11,55-	1
	Project PJKS (Denver)			Collected	•	
G S	Client No.		Date F	Received	1/2/86	
	Laboratory Supervisor Appro			Analyzed	•	
S.	Johnson P ada-			port No. 50		
T.	Sample Matrix:		ye ner			
	/ / Water (ug/L)		Diluti	on Factor		
-	/X / Soil (ug/g)			ire		
	/_/ Other					
×	Compound	Co	ncentration	Retent	ion Time N	
Š	•			umn 2 Column		
<u>n</u>	Benzene		<10	2.26		
	Chlorobenzene	4	<10	16.46	i i	
					•	
¢.	1.2-Dichlorobenzene		<10	1		
	1,2-Dichlorobenzene	8	<10 <10	27.93		
k k	1,3-Dichlorobenzene	8	<10	27.93		
¥ €	1,3-Dichlorobenzene 1,4-Dichlorobenzene	.8	<10 <10	27.93 26.40 22.51		
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene	6 4	<10 <10 <10	27.93 26.40 22.51 7.18		
	1,3-Dichlorobenzene 1,4-Dichlorobenzene	.8	<10 <10	27.93 26.40 22.51 7.18 5.47		
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene	4	<10 <10 <10	27.93 26.40 22.51 7.18		
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene	4	<10 <10 <10	27.93 26.40 22.51 7.18 5.47 15.26		
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene	4	<10 <10 <10 <10	27.93 26.40 22.51 7.18 5.47 15.26 16.91		
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene	4	<10 <10 <10 <10	27.93 26.40 22.51 7.18 5.47 15.26 16.91		
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene	4	<10 <10 <10 <10	27.93 26.40 22.51 7.18 5.47 15.26 16.91		
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene	4	<10 <10 <10 <10	27.93 26.40 22.51 7.18 5.47 15.26 16.91		
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene	4	<10 <10 <10 <10	27.93 26.40 22.51 7.18 5.47 15.26 16.91		
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene	4	<10 <10 <10 <10 <10 <10	27.93 26.40 22.51 7.18 5.47 15.26 16.91 17.77	weight basis	3.
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene Xylenes (Dimethyl benzene)	4	<10 <10 <10 <10 <10 <10	27.93 26.40 22.51 7.18 5.47 15.26 16.91 17.77	weight basis	
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene Xylenes (Dimethyl benzene)	4	<10 <10 <10 <10 <10 <10	27.93 26.40 22.51 7.18 5.47 15.26 16.91 17.77	weight basis	5.
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene Xylenes (Dimethyl benzene)	4	<10 <10 <10 <10 <10 <10	27.93 26.40 22.51 7.18 5.47 15.26 16.91 17.77	weight basis	
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene Xylenes (Dimethyl benzene)	4	<10 <10 <10 <10 <10 <10	27.93 26.40 22.51 7.18 5.47 15.26 16.91 17.77	weight basis	5.
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene Xylenes (Dimethyl benzene)	4	<10 <10 <10 <10 <10 <10	27.93 26.40 22.51 7.18 5.47 15.26 16.91 17.77	weight basis	3.
	1,3-Dichlorobenzene 1,4-Dichlorobenzene Ethyl benzene Toluene Xylenes (Dimethyl benzene)	4	<10 <10 <10 <10 <10 <10 <10 state are preserved.	27.93 26.40 22.51 7.18 5.47 15.26 16.91 17.77	weight basis	5.

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No 56528	Lab Sample No.	1-86-1002
Client U.S. Air Force	Field Sample No. 2	-ES-11 SS-2 2.4
Project PJKS (Denver)	Date Collected	
Client No.	Ďate Received	1/2/86
Laboratory Supervisor Approval:	Date Analyzed	1/6/86
Johnny R. Adamon Sample Matrix	OC Report No.	56528-7
/ / Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	С	oncentrat	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job Nc. 56528	Lab Sample No. 1-86-1003
Client U.S. Air Force	Field Sample No. 3-ES-11, SS-3 5-
Project PJKS (Denver)	Date Collected
Client No.	Date Received
Laboratory Supervisor Approval:	Date Analyzed 1/6/86
Johnna R. Adamoin Sample Matrix	OC Report No
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture %
/ / Other	

Compound	Concentration				Retentio	on Time	Notes	
	Det L	im	Column	Column	2	Column 1	Column	2
Benzene	4		<10			2.26		
Chlorobenzene	4		<10			16.46	1	
1,2-Dichlorobenzene	. 9		<10			27.93		
1,3-Dichlorobenzene	8		<10			26.40		
1,4-Dichlorobenzene	6		<10			22.51		+
Ethyl benzene	4		<10			7.18		
Toluene	4		<10			5.47		
Xylenes (Dimethyl benzene)	.4		<10			15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. 1-86-1064	
Client U.S. Air Force	Field Sample No. 2-£S-11, SS-4,8-	16
Project PJKS (Denver)	Date Collected	
Client No.	Date Received 1/2/86	•
Laboratory Supervisor Approval:	Date Analyzed 1/6/86	
Johnny R. adamon Sample Matrix	OC Report No. <u>56528-7</u>	,
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/_/ Other		

c	oncentrati	ion	Retention Time		Notes
Det Lim	Column 1	Column 2	Column	1 Column 2	
.4	<10		2.26		
. 4	<10		16.46		
8	<10		27.93		
-8	<10		26.40		
6	<10		22.51		
. 4	<10		7.18		
4	<10		5.47		
. 4	<10	,	15.26 16.91 17.77		
	Det Lim	Det Lim Column 1 _4 <10 4 <10 8 <10 6 <10 4 <10 4 <10 4 <10 4 <10	_4 <10 4 <10 8 <10 8 <10 6 <10 4 <10 4 <10	Det Lim Column 1 Column 2 Column _4	Det Lim Column 1 Column 2 Column 1 Column 2 _4

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No.	1-86-1005
Client	U.S. Air Force	Field Sample No.	2-ES-11, SS-5- 3-15
Project _	PJKS (Denver)	Date Collected	
Client No.		Date Received	1/2/56
Laboratory	Supervisor Approval:	Date Analyzed _	16186
John Sample Mat	R. adamoin	OC Report No.	<i>56528-7</i>
/	Water (ug/L)	Dilution Factor _	
<u>/x</u> _/	Soil (ug/g)	*Moisture	•
/	Other		

[c	oncentrat:	ion	Retention Time		Notes
Det Lim	Column 1	Column 2	Colama	1 Column 2	·
.4	<10		2.26		
.4	<10		16.46		
. <u>, e</u>	<10		27.93		
)8	<10		26.40		
. 6	<10		22.51		
.4	<10		7.18		
14	<10		5.47		
4	<10		15.26 16.91 17.77		
				-	
	.4 .4 .8 .8 .6	Det Lim Column 1 _4 <10 _4 <10 _8 <10 _6 <10 _4 <10 _4 <10 _4 <10 _4 <10	.4 <10 .4 <10 .8 <10 .8 <10 .6 <10 .4 <10 .4 <10 .4 <10	Det Lim Column 1 Column 2 Column 4 <10 2.26 4 <10 16.46 .8 <10 27.93 8 <10 26.40 .6 <10 22.51 .4 <10 7.18 14 <10 5.47	Det Lim Column Co

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No	
Client U.S. Air Force	Field Sample No. 2-ES-13, SS-1	<u>c-</u>
Project PJKS (Denver)	Date Collected	
Client No.	Date Received 1/2/86	
Laboratory Supervisor Approval:	Date Analyzed //6/86	
John R. Odamon Sample Matrix:	OC Report No. <u>36528-7</u>	_
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	_ %
/_/ Other		

Compound	C	oncentrat:	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	. 4	<10		2.26		
Chlorobenzene	ے4_	<10		16.46	<u> </u>	
1,2-Dichlorobenzene		<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	.4	<10		5.47	<u> </u>	
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No.	1-86-1007
Client U.S. Air Force	Field Sample No.	2-E5-13 55-2 2-4
Project PJKS (Denver)	Date Collected _	
Client No.	Date Received	6/2/56
Laboratory Supervisor Approval:	Date Analyzed _	17/86
Johnne R. Gdamson	OC Report No	56528-7
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	<u> </u>
/ / Other		

Compound		Çc	ncentrat	ion	Retenti	on Time	Notes
	Det L	Lm	Column 1	Column	2 Column 1	Column 2	
Benzene	4	Ì	<10		2.26		
Chlorobenzene	4		<10		16.46		
1,2-Dichlorobenzene	. 8		<10		27.93		
1,3-Dichlorobenzene	8		<10		26.40		
1,4-Dichlorobenzene	6		<10		22.51		
Ethyl benzene	4		<10		7.18		
Toluene	. 4		<10		5.47		
Xylenes (Dimethyl benzene)	. 4		<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No.	1-86-1008
Client U.S. Air Force	Field Sample No. $2-$	
Project FJKS (Denver)	Date Collected	
Client No.	Date Received	1/2/86
Laboratory Supervisor Approval:	Date Analyzed	117/86
Johnny R Cidamoin Sample Matrix	OC Report No. 565	7 - 8 = 7
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	C	oncentrat	ion	Retention Time		Notes
	Det Lim	Column 1	Column 2	Column	Column 2	
Benzene	. 4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.е	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	_4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No	1-86-1009
Client	U.S. Air Force	Field Sample No.	2-ES-14, SS-1, C-2
Project	PJKS (Denver)	Date Collected _	
Client No.		Date Received _	1/2/86
Laboratory	Supervisor Approval:	Date Analyzed	1/7/86
Sample Matz	R. adamson	OC Report No	50528-7
<u>/</u> / W	Water (ug/L)	Dilution Factor	
<u>/x</u> / s	Soil (ug/g)	*Moisture	ę
<u>/_</u> / 0	Other		·

Compound	C	Concentration			on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10	·	2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	. 8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	. 4	<10		5.47		
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. $i-86-1010$
Client U.S. Air Force	Field Sample No. 2-25-14 55-2,2-
Project PJKS (Denver)	Date Collected
Client No.	Date Received 1/2/86
Laboratory Supervisor Approval:	Date Analyzed 1/7/86
Sample Matrix:	OC Report No. 56528-7
/_/ Water (ug/L)	Dilution Factor
/x / Soil (ug/g)	*Moisture
/ / Other	

Compound	C	oncentrat:	ion	Retentio	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	ي4ر	<10		2.26		
Chlorobenzene	4د	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	. 6	<10		22.51		
Ethyl benzene	.4	<10	<u> </u>	7.18	<u> </u>	
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No.	1-86-1011	
Client	U.S. Air Force	Field Sample No.	Q-ES-14 55-3	5-7
Project	PJKS (Denver)	Date Collected _	<u> </u>	
Client No.		Date Received _	1/2/86	
Laboratory	y Supervisor Approval:	Date Analyzed	117/86	
Sample Ma:	ng R. adamin	OC Report No	<u>56528-8</u>	
/	Water (ug/L)	Dilution Factor		
<u>/x</u> /	Soil (ug/g)	*Moisture	<u> </u>	
/ /	Other			

Compound	C	oncentrat:	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<-10		16.46	1	
1,2-Dichlorobenzene	. 8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	. 4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

Page	1	of	<u></u>
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ES Job No.	56528	Lab Sample No	1-86-10-12
Client	U.S. Air Force	Field Sample No.	3-E3-14 55-4 9-
Project	FJKS (Denver)	Date Collected _	
Client No.		Date Received	1/2/86
Laboratory	Supervisor Approval:	Date Analyzed	1/7/86
Sample Matz	R. adamon	OC Report No.	54528-8
<u>/_</u> / w	Nater (ug/L)	Dilution Factor _	
<u>/x</u> / s	Soil (ug/g)	*Moisture	
/ / ()+her		

Compound	C	oncentrat:	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	_4	<10		2.26		
Chlorobenzene	. 4	<10		16.46		
1,2-Dichlorobenzene	_8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	. 6	<10		22.51		
Ethyl benzene	.4	<10		7.18		
Toluene	4	<10		5.47	ļ <u>i</u>	
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

Page _	l of	1
Report		

ES Job No.	56528	Lab Sample No.	1-86-1013
Client	U.S. Air Force	Field Sample No.	2-ES-14 SS-5,14-1
Project	PJKS (Denver)	Date Collected	
Client No.		Date Received	1/2/86
Laboratory	Supervisor Approval:	Date Analyzed	1/7/86
Sample Mat	P Odamoin	OC Report No	56528-8
/_/	Water (ug/L)	Dilution Factor _	
<u>/x</u> /	Soil (ug/g)	*Moisture	•
/ /	Other		

Compound	C	oncentrat	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10	į.	2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10	·	27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	_4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
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	T-10					
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

Aboratory Supervisor Approval: o Page (Dilution Factor Kehrm CC Report No. *Moisture Environmental Quality Parameters Soil (ug/g) (ug/kg) ANALYTICAL RESULTS SUMMARY Water (ug/L) Sample Matrix; Other K 13-06-61 19-19-85 8 £5 75 . ON 905 83 Engineering-Science コセンド Date Collected Date Received Client No. Project Client

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203		1	78	7	1	7.7						7	4
Lab Sample No. TKN	+-	+	-+		11 45 1407	00/ 7511						- C	
Field Sample No.	15 x - 55 - 51 x - 102/61 12 - 85 - 119 2		7.5-67		15.4.94.65	1 505 14 WE						Date Analyzed	A 14 14 14 14 14 14 14 14 14 14 14 14 14

presented on a dry-weight basis.

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Engineering-Science	AN Envir	ANALYTICAL RESULTS SUMMARY Environmental Quality Parameters	RESULI Qualit	S SUMM	ARY meters				<u>ૄ</u> ૠ	Parje / of Report	0
ES JOB NO. 56528	ļ						χ Report Wo.	rt No.	1		· · · · · · · · · · · · · · · · · · ·
Client USAF	: 1						Laborat	ory Su	pervisa	Laboratory Supervisor Approval:	: levo
Project PTKS DUNGE	Sa	Sample Matrix:	rix:			,	3 1	3	أبح	your K. adam.	7
Client No.	ļ	/_/ Water (ug/L)	ter (ug	(T/			Dilution FactOr	n Fact	\ -\f		1
Date Collected /- 1-86	ļ	(px/bn) ((ng/g)) (ng/kg)	/bn) 11	′bn) ∕(b́,	/Kg)	*	*Moisture	a,			
Date Received $/-2-5/$	ļ	/ / Other	her						1		

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C106	210	007	320	90	!								35	EPA 351.3
510>	<0.5	20.5	<0.5	<0.5									1.5	87A40.1
6	71	5.7 "	7.8 4	ፈት ንት									2,+13	8.178 473 1.04 473 1. LZ 493 1.42 511/5
0.373	0,343	1.01	6-858	41									26	1.45.54.1
151-86-1001	ci-81-142	1003	1004	_500/ /									E	
7KS 2-ES-118-1 0-26	K. 2 ES-11 (5.1.274 ES	74/3-5/1/3-5 5-5/8	174.2-5-11 524.8-10-57	P. 2-5-115-5-13-19									Date Analyzed	Analytical Method
	1 0.373	0.373	1 0.373 - 0.343 5 1.01	0.373	0.373	0.373 0.343 7.01 0.553	0.373	0.373 0.843 1.858 0.27	0.373 0.343 1.01 0.27	0.373	0.373 0.343 1.01 1.05 - 0.27	0.373 0.343 0.01 0.27	0.373 0.343 0.01 0.07	0.373 0.343 0.01 0.02 0.02 0.02

^{*} If & moisture is reported, results are presented on a dry-weight basis.

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Lab Sample No.	0.	بي کم/	NO3	Physolic	1752 1		
PJK 2-65-12 61-56-1006		610	7.0	017 7.0 (6.5 306	306		
PTC 25-13 4-12-4 x 1-86-1007		780.0	2,5	<0.5	150		
P 7 KG 255-13, 53 C-21 & 01-86-1008		6.13	2.2	<0.5	40		
	1						
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Σ	Λ_{\circ}	1	4/5	12	7-		
	1	5173 354.1	EPA 352.	314, 1 8PA 352, 1 8"A420,1 EPA 351.3	Ery 351. 3		

^{*} If & moisture is reported, results are presented on a dry-weight basis.

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Prye / of Paport Schring R. Coleman Dilution Falgbr CC Report No. (Johnney *Moisture Environmental Quality Parameters Soil((ug/g) (ug/Kg) ANALYTICAL RESULTS SUMMARY // Water (ug/L) Sample Matrix: / / Other PJKS Denver 78-1-1 56528 八八八斤 Engineering-Science Date Collected Date Received ES Job No. Client No. Project Client

	Field Sample No.	Lab Sample No.	NO2	NO3	NO3 Phynolis TKN	, TKN			Notes
	PTKS, 1854 554,8-2 ES 01-86-16.69	67-78-10	26.0	- >	<0.5	596			
		0/0/	1.0.7	١, (٥	5.0>	336			
-16		1101	09%	3.1	<0.5	230	-		F
7		7/0/	1,66.	3.8	<0.5	7			
	856, 2-15-14 55 5 14-11 ES	E101 /	. 449	١٨	<0.5	110			
								,	
	Date Analyzed	M	2/4/2	2/8	15+16	31			
	Analytical Method		inst vid 3	1.288 4733	Pp 354.1 SPA352.1 SPA420.1 SPA 351.3	E158 433			

· If & moisture is reported, results are presented on a dry-weight basis.

Alate A: Best estimated value for nitrate. Note A: Best estimated

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Engineering-Science	ANALYTICAL RESULTS SUMMARY Environmental Quality Parameters	Report
ES JOD NO. 56528		g: Report Ho.
Client DSAF	ı	Laboratory Supervisor Approval:
Project PTKS Denver	Sample Matrix:	Gohmmy K. Vidennoen
Client No:	/_/ Water (ug/L)	Diffuction Factor
Date Collected 1-1-56	W Soil ((ug/g) (ug/kg)	•Moisture
Date Received 1-2-86	/_/ Other	

	Field Sample No.	Lab Sample No.	N02	NO3	NO3 Phenelis TKN	, TKN			Hoter
ے ا	PTKS, 125/14 SS-1,6-21 ES 01-86-100	600/-98-10	0.45	7	<0.5	296			
L:	1713 2-644 612-4 6	0/0/	1 60%	١	40.5x	336			
168	1763-65-1411-3 5-1, 85	110/	· 960°	3.1	<0.51	230			F
	52 11-60-18 th-82 (SYS)	7/01	1669	3.8	<0.5	14			
-	PSES 2-8544 55-5 14-18 ES	1013	· bb 77°	١٨	<0.5%	1011 7.07			
1									
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1									
<u>!</u>									
!									
	Date Analyzed	М	26410	2/8	15+16	1/5			
<u> </u>	Analytical Method		1.428 HJ3	1.288 4193	5.126.0131.05.4931.1 EPA 430.1 EPA 351.3	EPP 351.3			
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Note A: Best estinated

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SS JOB NO. 56528	į	CC Report No.
Client WSAF		Laboratory Supervisor Approval:
Post PTKS Denyer	Sample Matrix:	(Johnny K Udemoon)
lient No.	/ / Water (ug/L)	Dilution Fabor
Date Collected $/-1-86$	12 Soil (ug/g) (ug/kg)	*Molsture
Date Received $1-2-86$	// Other	

Field Sample No.	Lab Sample No.	100	NO3	Phynolic	TKN			Notes
PJKS, 2-E5-138-10-2/EG 61-86-10cb	920/-78-19	6)-0-	7.0	7.0 <0.5 306	306			
P545, 2-25-13 4-22-4'EL 11-86-1007	too/-98-14	730.0	2,5	40.5	150			
\$ P3KS, DES-13, 83 35-7'ES 61-86-1008	800/-98-19	0.13	7.2	<0.5	07		į	
-								
Date Analyzed	M	26	5	1/2/	1/2/			
Analytical Method		EPH 354. 1 8PA 352.1 8TA420.1 EPH 351.3	894352.1	1.0chus	Erf 351.3			

^{*} If & moisture is reported, results are presented on a dry-weight basis.

Engineering-Science	ANALYTICAL RESULTS SUMMARY Environmental Quality Parameters	Page / of /
ES Job No. 56528	,	gx: Report In.
Client UNSAF	•	Laboratory Supervison Approval:
Project PTKS Denyer	Sample Matrix:	your K. adamoen
Client No.	/_/ Water (ug/L)	Dilution Faciar
Date Collected $1-1-86$	Les Soil (ug/g) (ug/kg)	*Moisture
Date Received $/-\lambda - 8\zeta$	/ Other	
	1).44:, 1	

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Field Sample No.	Lab Sample No.	10N		NO3 Phynolica TKN	TKN			Hotes
PTKS 2-ES-118-1:02/2 61-86-100	1021-18-195	0.373	Ь	5'0>	200			
TITEC 2 ESH (5.2.2.4/ES) 01-8/-1/02	101-8-10	6.343	- 1>	<0.5	210			
2 PTK 2-ES1151-3: 5-7/EK	(0)	101	81-7.8	5.07	007			
175 2-ES-11 SC4: K+6/ES	700/	828.p	2.8B	<0.5	320			
PXS, 2-55-1155-5-1345/ES	_\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	6.27	4. 7K	<0.5	4.7K 20.5 90			
	>							
Date Analyzed	M	70	27+13	7-	130			·
Analytical Method		1.425/1/3	10.55 495	5.178 893 1.04 493 1.628 APS 1.428 193	EPA 351.3	_		
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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

Page	1	of	Z-
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ES Job No. <u>56528</u>	Lab Sample No	1-86-7030
Client U.S. Air Force	Field Sample No.	3-ES-15, SS-1
Project PJKS (Denver	Date Collected _	1-2-96
Client No.	Date Received _	1-3-86
Laboratory Supervisor Approval:	Date Analyzed	1/3/86
Johnny R. C. Comson Sample Matrix:	QC Report No	PIKS - CS
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	C	oncentrat	ion	Retentio	on Time Note	2 S
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9	1	
bis(2-chloroethoxy) methane	12	<12	-	44.2		
bis(2-chloroisopropyl) ether	. 25	<25		42.2	;	
Bromobenzene	8	<10		29.18	i	
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	55	<10	<u> </u>	26.01		
Chloroethane	10	<10		4.51		
Chloroform	11	<10		13.01		
1-Chlorohexane	2	<10		26.58	1	
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9	<u> </u>	
Dibromochloromethane	2	<10		18.68	1	

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Compound		oncentrat		Retenti		Note
	Det Lim	Column 1	Column 2	Column 1	Column 2	i
Dibromomethane	1	<10		13.09		<u> </u>
1,2-Dichlorobenzene	3	<10		60.10	. -	!
1,3-Dichlorobenzene	6	<10	1	42.90	<u> </u>	•
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30	-	3.54		
1,1-Dichloroethane	1	<10	<u> </u>	11.67		1
1,2-Dichloroethane	1	<10		13.55	:	
1,1-Dichloroethylene	3	<10	!	10.31	<u> </u>	1
trans-1,2-Dichloroethylene	2	<10	<u>:</u>	12.35		1
Dichloromethane	5	<10	<u> </u>	7.50		
1,2-Dichloropropane	11	<10	İ	17.19		į
				17.24		i
1,3-Dichloropropylene	6_	<10		18.68		!
1,1,2,2-Tetrachloroethane	7	<10	•	23.47	!	1
1,1,1,2-Tetrachloroethane	. 7	<10		21.04	į	1
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10	1	14.76	<u> </u>	i
1,1,2-Trichloroethane	1	<10	İ	18.68	1	1
Trichloroethylene	2	<10		17.91	:	
Trichlorofluoromethane	1	<10		8.58	:	
Trichloropropane	2	<10	!	23.01		
Vinyl chloride	i 4	<10		3.54	1	
	,			:		
				1	1	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No56528	Lab Sample No	1-86-1031
Client U.S. Air Force	Field Sample No.	3-ES-15, SS-2
Project PJKS (Denver	Date Collected	
Client No.	Date Received	1-3-86
Laboratory Supervisor Approval:	Date Analyzed	1/8/36
Johnny R Cidanson Sample Matrix:	QC Report No.	PJKS -C3
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	Concentration			Retention Time Notes	
	Det Lim	Column 1	Column	2 Column 1 C	column 2;
Benzyl chloride	. 4	<10		40.9	ı
<pre>bis(2-chloroethoxy) methane</pre>	12	 		44.2	:
<pre>bis(2-chloroisopropyl) ether</pre>	25	L25		42.2	
Bromobenzene	8	<10		29.18	
Bromodichloromethane	2	<10		15.69	
Bromoform	4	<10		21.24	
Bromomethane	24	424		2.85	
Carbon tetrachloride	. 3	<10		15.47	
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	10	<10	1	4.51	
Chloroform	11	<10		13.01	
1-Chlorohexane	2	<10		26.58	1
2-Chloroethyl vinyl ether-	3	<10		19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	20	(عرب		9.37	
Chlorotoluene	4	<10	1	37.9	
Dibromochloromethane	2	<10	İ	18.68	1

1-86-1031

Compound	Concentration			Retentio		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	111	<10		13.09	:	Ì
1,2-Dichlorobenzene	3	<10	<u>i </u>	60.10		i
1,3-Dichlorobenzene	6	<10		42.90		<u> </u>
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	. 30	430	<u> </u>	3.54		!
1,1-Dichloroethane	1	<10		11.67		!
1,2-Dichloroethane	1	<10		13.55	·	:
1,1-Dichloroethylene	3	<10		10.31	: 	i
trans-1,2-Dichloroethylene	2	<10		12.35		:
Dichloromethane	5	<10		7.50		!
1,2-Dichloropropane	! 1	<10		17.19		į
	 			17.24		!
1,3-Dichloropropylene	6	<10		18.68		<u> </u>
1,1,2,2-Tetrachloroethane	7	<10	1	23.47		1
1,1,1,2-Tetrachloroethane	i. 7	<10		21.04		ļ
Tetrachloroethylene	<u> </u>	<10		23.47	!	1
1,1,1-Trichloroethane	1	<10	!	14.76		
1,1,2-Trichloroethane	1	<10	<u>i</u>	18.68	·	1
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10	!	23.01		1
Vinyl chloride	4	<10		3.54		į
				1		1
		1		1		
				!		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No56528	Lab Sample No	1-36-105-
ClientU.S. Air Force	Field Sample No.	3-E5-15, 55-3
Project PJKS (Denver	Date Collected _	1-4-86
Client No.	Date Received	1-10-86
Laboratory Supervisor Approval:	Date Analyzed	1/13/36
Johnson R. Cidarrosan Sample Matrix:	QC Report No.	PJKS-09
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	8
/_/ Other		•

Compound	Concentration			Retention Time Note	
	Det Lim	Column 1	Column 2	Column 1	Column 2
Benzyl chloride	4	<10		40.9	j
<pre>bis(2-chloroethoxy) methane</pre>	12	<12	-	44.2	
bis(2-chloroisopropyl) ether	25	(25	•	42.2	
Bromobenzene	8	<10		29.18	!
Bromodichloromethane	2	<10		15.69	; t
Bromoform	4	<10		21.24	:
Bromomethane	24	/24		2.85	:
Carbon tetrachloride	3	<10	1	15.47	:
Chloroacetaldehyde	10	<10		11.6	
Chloral	10	<10		18.7	
Chlorobenzene	5	<10		26.01	
Chloroethane	. 10	<10		4.51	
Chloroform	11	<10		-13.01	ŀ
1-Chlorohexane	2	<10		26.58	1
2-Chloroethyl vinyl ether	3	<10	1	19.49	
Chloromethane	2	<10		1.95	
Chloromethyl methyl ether	. 20	(20		9.37	
Chlorotoluene	4	<10		37.9	,
Dibromochloromethane	2	<10	1	18.68	

Compound	Concentration			Retenti		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		i
1,3-Dichlorobenzene	66	<10		42.90		!
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	<30		3.54		
1,1-Dichloroethane	1	<10		11.67	1	
1,2-Dichloroethane	11	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31	:	!
trans-1,2-Dichloroethylene	. 2	<10	<u> </u>	12.35		r
Dichloromethane	5	<10	İ	7.50		
1,2-Dichloropropane	1	<10		17.19		į
				17.24	:	
1,3-Dichloropropylene	б	<10	1	18.68	<u> </u>	!
1,1,2,2-Tetrachloroethane	7	<10	!	23.47	!	
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10	1	23.47	:	İ
1,1,1-Trichloroethane	1	<10	i	14.76	1	!
1,1,2-Trichloroethane	1	<10		18.68		ļ
Trichloroethylene	. 2	<10		17.91	i	
Trichlorofluoromethane	.1	<10		8.58	1	!
Trichloropropane	2	<10		23.01	1	
Vinyl chloride	.4	<10		3.54	:	
·						
		i	!	!		1
	•		•	!		1
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		;				:

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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Halogenated Volatile Organics

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	Engineering-Science	ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)	Page / of 2 Report
8 🕏	ES Job No. 56528	Lab Sample No.	1-86-1053
	Client U.S. Air F	orce Field Sample No	· 3-ES-15,55-4
	Project PJKS (Denv	rer Date Collected	1-9-86
_	Client No.	. Date Received	1-10-36
	Laboratory Supervisor	Approval: Date Analyzed	1/13/86
	Johnson R Co	James QC Report No.	PJK5-09
6 Ag	/ / Water (ug/L)	Dilution Factor	
	/X / Soil (ug/g)	*Moisture	
t.	/ / O . N		

Compound -	c	oncentrat	ion Retenti	on Time Notes
	Det Lim	Column 1	Column 2 Column	Column 2:
Benzyl chloride	4	<10	40.9	
bis(2-chloroethoxy) methane	12	<12	44.2	:
bis(2-chloroisopropyl) ether	25	८३५	42.2	
Bromobenzene	8	<10	29.18	•
Bromodichloromethane	2	<10	15.69	i (
Bromoform	4	<10	21.24	i
Bromomethane	. 24	1	2.85	
Carbon tetrachloride	3	<10	15.47	
Chloroacetaldehyde	10	<10	11.6	·
Chloral	. 10	<10	18.7	·
Chlorobenzene	5	<10	26.01	
Chloroethane	10	<10	4.51	
Chloroform	1	<10	13.01	<u>i</u>
1-Chlorohexane	. 2	<10	26.58	1
2-Chloroethyl vinyl ether	3	<10	19.49	
Chloromethane	. 2	<10	1.95	
Chloromethyl methyl ether	20	420	9.37	<u> </u>
Chlorotoluene	4	<10	37.9	
Dibromochloromethane	2	<10	18.68	

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1-86-1083

Compound				Retention Time		
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09	·	
1,2-Dichlorobenzene	3	<10	<u>!</u>	60.10		!
1,3-Dichlorobenzene	66	<10	 	42.90		
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	(30	<u> </u>	3.54		
1,1-Dichloroethane	1	<10		11.67	i	1
1,2-Dichloroethane	11	<10		13.55	<u>:</u>	:
1,1-Dichloroethylene	3	<10	<u> </u>	10.31	<u> </u>	1
trans-1,2-Dichloroethylene	2	<10	!	12.35		
Dichloromethane	5	<10	!	7.50		:
1,2-Dichloropropane	11	<10		17.19		į
				17.24	1	i
1,3-Dichloropropylene	6	<10	1	18.68	!	<u> </u>
1,1,2,2-Tetrachloroethane	: 7	<10		23.47	!	!
1,1,1,2-Tetrachloroethane	7	<10		21.04	<u>:</u>	!
Tetrachloroethylene		<10		23.47	:	!
1,1,1-Trichloroethane	111	<10		14.76	<u>:</u>	!
1,1,2-Trichloroethane	<u> </u>	<10	<u> </u>	18.68		1
Trichloroethylene	2	<10		17.91	<u>:</u>	+
Trichlorofluoromethane	• 1	<10		8.58		·
Trichloropropane	2	<10	!	23.01		
Vinyl chloride	4	<10	ļ	3.54		
		<u> </u>				<u> </u>
		i				:
		<u> </u>		1		į
		<u>:</u>	·			
		<u>;</u>				1

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No.	56528	Lab Sample No	1-86-1684
Client	U.S. Air Force	Field Sample No.	3-ES-15, 55.5
Project	PJKS (Denver	Date Collected	1-9-86
Client No.		Date Received	1-10-36
Laboratory	Supervisor Approval:	Date Analyzed	1/13/86
Sample Matz	my R adaman	QC Report No.	PJ\$5-09
<u>/</u> / v	Water (ug/L)	Dilution Factor _	
<u>/x</u> / s	Soil (ug/g)	*Moisture	*
<u>/_</u> /	ther		

Compound	Concentration			Retention Time		Notes
•	Det Lim	Column 1	Column 2	Column	Column 2	
Benzyl chloride	4	<10		40.9		•
bis(2-chloroethoxy) methane	12	<12	-	44.2		
bis(2-chloroisopropyl) ether	25	<25		42.2		!
Bromobenzene	8	<10		29.18	1	:
Bromodichloromethane	2	<10		15.69		f
Bromoform	4	<10		21.24		
Bromomethane	24	224		2.85		i
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6	,	·
Chloral	10	<10		18.7	!	
Chlorobenzene	5	<10		26.01	<u> </u>	<u> </u>
Chloroethane	10	<10		4.51		
Chloroform	1	<10	-	13.01	<u> </u>	
1-Chlorohexane	. 2	<10		26.58	<u> </u>	1
2-Chloroethyl vinyl ether	3	<10		19.49	ļ 4	·
Chloromethane		<10		1.95		
Chloromethyl methyl ether	-20	< 20		9.37		
Chlorotoluene	4	<10		37.9		<u> </u>
Dibromochloromethane	. 2	<10		18.68	:	1

Compound		oncentrat:		Retentio		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10	<u> </u>	60.10		1
1,3-Dichlorobenzene	. 6	<10	<u> </u>	42.90		
1,4-Dichlorobenzene	. 5	<10	<u> </u>	37.28		:
Dichlorodifluoromethane .	30	23c		3.54	t •	!
1,1-Dichloroethane	1	<10		11.67		!
1,2-Dichloroethane	<u>, 1</u>	<10		13.55		į
1,1-Dichloroethylene	٠3	<10		10.31		!
trans-1,2-Dichloroethylene	2	<10		12.35		i
Dichloromethane	-5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		İ
1,3-Dichloropropylene	5	<10		18.68		<u> </u>
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01	! ·	
Vinyl chloride	4	<10		3.54		
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				!		
	:	!				
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No	1-86-1083
Client U.S. Air Force	Field Sample No.	3 ES-15, 55 6
Project PJKS (Denver	Date Collected	1-9-96
Client No.	Date Received	1-10-86
Laboratory Supervisor Approval:	Date Analyzed	1/13/56
Johnne R. Cidanison Sample Matrix	QC Report No. P	JKS-07
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	٠
/_/ Other		

Compound	c	oncentrat:	ion	Retention Time N		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9	•	•
<pre>bis(2-chloroethoxy) methane</pre>	12	<12	-	44.2		İ
<pre>bis(2-chloroisopropyl) ether</pre>	25	125		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10	_	21.24		
Bromomethane	24	(24		2.85		
Carbon tetrachloride	3	<10		15.47	!	
Chloroacetaldehyde	10	<10		11.6	i	
Chloral	10	<10		18.7	i :	
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51	;	
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58	<u> </u>	ı
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<10		9.37		
Chlorotoluene	4	<10	! !	37.9	!	<u> </u>
Dibromochloromethane	2	<10		18.68	:	ļ

1-86-1085

Compound		Concentration			Retention Time	
	Det	Lim	Column 1	Column 2	Column 1 Column 2	2
Dibromomethane		•1	<10		13.09	İ
1,2-Dichlorobenzene		3	<10		60.10	
1,3-Dichlorobenzene		5	<10		42.90	
1,4-Dichlorobenzene	<u> </u>	5	<10		37.28	i
Dichlorodifluoromethane		30	<30		3.54	!
1,1-Dichloroethane		1	<10		11.67	!
1,2-Dichloroethane		1	<10		13.55	! !
1,1-Dichloroethylene		3	<10		10.31	
trans-1,2-Dichloroethylene		·2	<10		12.35	İ
Dichloromethane	:	5	<10		7.50	!
1,2-Dichloropropane		1	<10		17.19	
				-	17.24	ì
1,3-Dichloropropylene	<u> </u>	6	<10		18.68	<u> </u>
1,1,2,2-Tetrachloroethane	:	7	<10	<u> </u>	23.47	
1,1,1,2-Tetrachloroethane		7	<10		21.04	
Tetrachloroethylene		1	<10		23.47	
1,1,1-Trichloroethane		1	<10		14.76	
1,1,2-Trichloroethane	! : 	1	<10	<u> </u>	18.68	
Trichloroethylene		2	<10		17.91	
Trichlorofluoromethane		1	<10		8.58	
Trichloropropane	i	2	<10		23.01	
Vinyl chloride	i 	4	<10		3.54	į
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	<u> </u>			İ		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. 56528	Lab Sample No	1-86-1032
Client U.S. Air Force	Field Sample No.	3-ES16, 55-1
Project PJKS (Denver	Date Collected	1-2-96
Client No.	Date Received	1-3-86
Laboratory Supervisor Approval:	Date Analyzed	1/5/86
John P. Colomon Sample Matrix?	QC Report No.	PJKS-CS
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	Concentration		Retention Time		Notes	
_	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9)
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2		,
bis(2-chloroisopropyl) ether	25	<25		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10	·	13.01		
1-Chlorohexane	.2	<10		26.58	•	ļ
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	(20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68	:	

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

1-86-1032

Compound	Concentration			Retentio		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09	:	
1,2-Dichlorobenzene	3	<10	<u> </u>	60.10	: : :	
1,3-Dichlorobenzene	6	<10	1	42.90	:	
1,4-Dichlorobenzene	5	<10	1	37.28		
Dichlorodifluoromethane	30	<30		3.54	<u> </u>	İ
1,1-Dichloroethane	. 1	<10		11.67	<u>;</u>	<u> </u>
1,2-Dichloroethane	1	<10	<u> </u>	13.55	: !	1
1,1-Dichloroethylene	3	<10	1	10.31	<u> </u>	!
trans-1,2-Dichloroethylene	2	<10		12.35		<u> </u>
Dichloromethane	5	<10		7.50	1	!
1,2-Dichloropropane	1	<10		17.19	!	
			1	17.24	İ	
1,3-Dichloropropylene	6	<10		18.68		į
1,1,2,2-Tetrachloroethane	7	<10		23.47	<u> </u>	
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76	•	į
1,1,2-Trichloroethane	1	<10		18.68	! !	
Trichloroethylene	2	<10		17.91	į	
Trichlorofluoromethane	1	<10		8.58	†	
Trichloropropane	2	<10		23.01	ř.	
Vinyl chloride	4	<10	1	3.54	i	İ
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^{*} If * moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No.	56528	Lab Sample No	1-86-1033
Client	U.S. Air Force	Field Sample No.	3-ES-16,55-2
Project	PJKS (Denver	Date Collected	1-7-96
Client No.		Date Received	1-3-86
Laboratory	Supervisor Approval:	Date Analyzed	1/8/86
Sample Matr	P Champen	QC Report No.	PIKS-CB
<u>/_</u> / w	Nater (ug/L)	Dilution Factor	
<u>/x</u> / s	Soil (ug/g)	*Moisture	
<u>/_</u> / c	ther		

Compound	Concentration			Retention Time		Notes
-	Det Lim	Column 1	Column 2	Column 1	Column 2	•! !
Benzyl chloride	4	<10		40.9	ļ	i
<pre>bis(2-chloroethoxy) methane</pre>	. 12	(12		44.2		1
bis(2-chloroisopropyl) ether	25	4 25		42.2		
Bromobenzene	8	<10		29.18	1	:
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24	m m m m m m m m m m m m m m m m m m m	
Bromomethane	24	ر کالا		2.85	i	
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01	:	
Chloroethane	10	<10		4.51	<u> </u>	
Chloroform	1	<10		13.01	<u> </u>	
1-Chlorohexane	2	<10		26.58	1	1
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	. 2	<10		1.95		
Chloromethyl methyl ether	. 20	120		9.37		
Chlorotoluene	4	<10		37.9	:	ŀ
Dibromochloromethane	2	<10	ł	18.68	:	

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1-86-1033

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	. 3	<10	1	60.10	:	
1,3-Dichlorobenzene	6	<10		42.90	•	
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	30		3.54		1
1,1-Dichloroethane	. 1	<10		11.67		İ
1,2-Dichloroethane	1	<10		13.55	1	1
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		İ
Dichloromethane :	5	<10		7.50	!	i :
1,2-Dichloropropane	1	<10		17.19	i	
				17.24	!	
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10	!	23.47	1	
1,1,1,2-Tetrachloroethane	.7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10	<u> </u>	14.76	:	
1,1,2-Trichloroethane	1	<10		18.68	i	
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58	:	
Trichloropropane	2	<10	!	23.01	ŧ	
Vinyl chloride	4	<10]	3.54	; {	İ
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No	1-86-1634
Client U.S. Air Force	Field Sample No.	3-E5-16,553
Project PJKS (Denver	Date Collected	1-2-96
Client No.	Date Received	1-3-86
Laboratory Supervisor Approval:	Date Analyzed	1/9/86
John R Colombia	QC Report No.	PJKS -CG
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	. %
/_/ Other	· · · · · · · · · · · · · · · · · · ·	•

Compound	C	oncentrat	ion	Retention Time		Notes
_	Det Lim	Column 1	Column 2	Column 1	Column 2	! !
Benzyl chloride	4	<10		40.9		•
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2		:
bis(2-chloroisopropyl) ether	25	125		42.2		1
Bromobenzene	8	<10		29.18		!
Bromodichloromethane	2	<10		15.69	ļ	,
Bromoform	4	<10		21.24		· ·
Bromomethane	24	L 24		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	. 10	<10		11.6		
Chloral	10	<10		18.7	: :	
Chlorobenzene	5	<10		26.01	! . !	
Chloroethane	10	<10		4.51	<u>;</u>	
Chloroform	1	<10		13.01	<u> </u>	<i></i>
1-Chlorohexane	2	<10		26.58	•	•
2-Chloroethyl vinyl ether	3	<10		19.49	<u> </u>	
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	120		9.37		
Chlorotoluene	. 4	<10		37.9		
Dibromochloromethane	2	<10		18.68	•	l

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Compound	Concentration		Retention Time	Notes	
	Det Lin	Column 1	Column 2	Column 1 Column 2	i
Dibromomethane	1	<10		13.09	
1,2-Dichlorobenzene	3	<10		60.10	<u> </u>
1,3-Dichlorobenzene	. 6	<10		42.90	
1,4-Dichlorobenzene	5	<10	1	37.28	:
Dichlorodifluoromethane	30	<30		3.54	
1,1-Dichloroethane	<u>, 1</u>	<10		11.67	
1,2-Dichloroethane	1	<10	<u> </u>	13.55	;
1,1-Dichloroethylene	3	<10		10.31	
trans-1,2-Dichloroethylene	2	<10		12.35	<u> </u>
Dichloromethane	5	<10		7.50	
1,2-Dichloropropane	1	<10		17.19	
	-			17.24	
1,3-Dichloropropylene	6	<10		18.68	<u> </u>
1,1,2,2-Tetrachloroethane	7	<10		23.47	
1,1,1,2-Tetrachloroethane	.7	<10		21.04	
Tetrachloroethylene	1	<10		23.47	
1,1,1-Trichloroethane	. 1	<10		14.76	
1,1,2-Trichloroethane	1	<10		18.68	
Trichloroethylene	2	<10		17.91	
Trichlorofluoromethane	1	<10		8.58	
Trichloropropane	. 2	<10		23.01	
Vinyl chloride	4	<10		3.54	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No	1-86-1035
Client U.S. Air Force	Field Sample No.	3-ES-16,554
Project PJKS (Denver	Date Collected	1-2-86
Client No.	Date Received	1-3-56
Laboratory Supervisor Approval:	Date Analyzed	119/86
Johnny R. Cidamoran Sample Matrix	QC Report No.	PJK5-03
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/_/ Other		

Compound	C	oncentrat	ion	Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9	,	·
bis(2-chloroethoxy) methane	12	<12	-	44.2		
bis(2-chloroisopropyl) ether	25	425		42.2		
Bromobenzene	88	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	/24		2.85	-	
Carbon tetrachloride	3	<10		15.47	!	
Chloroacetaldehyde	10	<10		11.6	:	
Chloral	10	<10		18.7		
Chlorobenzene	. 5	<10		26.01		
Chloroethane	10	<10		4.51	:	
Chloroform	. 1	<10		13.01	i	
1-Chlorohexane	2	<10		26.58	•	·
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	. 2	<10		1.95		
Chloromethyl methyl ether	20	/ 20		9.37		
Chlorotoluene	. 4	<10		37.9	!	
Dibromochloromethane	2	<10		18.68	:	

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

1-86-1635

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	Ì
Dibromomethane	1	<10		13.09	!	<u> </u>
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90	,	
1,4-Dichlorobenzene	5	<10	ļ	37.28		
Dichlorodifluoromethane	30	<30		3.54	:	i
1,1-Dichloroethane	. 1	<10		11.67	: !	!
1,2-Dichloroethane		<10		13.55	:	!
1,1-Dichloroethylene	3	<10		10.31	<u> </u>	!
trans-1,2-Dichloroethylene	2	<10	<u>i</u>	12.35		<u> </u>
Dichloromethane	. 5	<10		7.50		į
1,2-Dichloropropane	1	<10		17.19	i	<u> </u>
	į			17.24	1	!
1,3-Dichloropropylene	6	<10		18.68		ļ
1,1,2,2-Tetrachloroethane	7	<10	·	23.47	1	
1,1,1,2-Tetrachloroethane	. 7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	<u>.</u> 1	<10		14.76	:	
1,1,2-Trichloroethane	1 1	<10		18.68	1	
Trichloroethylene	. 2	<10		17.91	•	ļ
Trichlorofluoromethane	. 1	<10		8.58	l	
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	1 . 4	<10		3.54	1	!
	!		1	!	1	
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				!	1	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Repor	t _		

ES Job No. 56528	Lab Sample No.	1-86-1036
Client U.S. Air Force	Field Sample No.	3-ES-16, 55-5
Project PJKS (Denver	Date Collected	
Client No. ·	Date Received	/-3 <i>-3(</i> ;
Laboratory Supervisor Approval:	Date Analyzed	1/9/56
Johnson R. Cadranosa Sample Matrix	QC Report No.	PJK5-08
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/_/ Other		

Compound	c	oncentrat	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9)	
bis(2-chloroethoxy) methane	12	د ا>		44.2		
bis(2-chloroisopropyl) ether	25	425		42.2		
Bromobenzene	. 8	<10		29.18	1	
Bromodichloromethane	2	<10		15.69	<u> </u>	,
Bromoform	4	<10		21.24		
Bromomethane	24	/24		2.85		i
Carbon tetrachloride	3	<10		15.47		1
Chloroacetaldehyde	_ 10	<10		11.6	:	
Chloral	10	<10		18.7	!	
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51	!	
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58	<u> </u>	,
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	· 2	<10		18.68		

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	C	oncentrat:	ion	Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10	i	1
1,3-Dichlorobenzene	6	<10		42.90		:
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	30	(30		3.54	;	
1,1-Dichloroethane	1	<10		11.67	i	i
1,2-Dichloroethane	1	<10		13.55		;
1,1-Dichloroethylene	3	<10	1	10.31	. •	1
trans-1,2-Dichloroethylene	2	<10		12.35		1
Dichloromethane	5	<10		7.50		:
1,2-Dichloropropane	1	<10		17.19		i
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	. 7	<10	•	23.47	İ	
1,1,1,2-Tetrachloroethane	i i 7	<10		21.04	ļ	
Tetrachloroethylene	1	<10		23.47	!	1
1,1,1-Trichloroethane	11	<10		14.76		
1,1,2-Trichloroethane	<u> </u>	<10	<u> </u>	18.68	!	<u> </u>
Trichloroethylene	2	<10		17.91	;	
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01	1	!
Vinyl chloride	4	<10		3.54		į
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics · SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No	1-86-1037
Client U.S. Air Force	Field Sample No.	3-ES-16,55-6
ProjectPJKS (Denver	Date Collected	1-2-96
Client No.	Date Received	1-3.86
Laboratory Supervisor Approval:	Date Analyzed	1/9/86
Jehnes R. Colonson- Sample Matrix	QC Report No.	PIKS-CS
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/ / Other		•

Compound	c	oncentrat	i <u>on</u> Retenti	on Time Notes
	Det Lim	Column 1	Column 2 Column 1	Column 2
Benzyl chloride	4	<10	40.9	•
<pre>bis(2-chloroethoxy) methane</pre>	12	12	44.2	
bis(2-chloroisopropyl) ether	25	<25	42.2	;
Bromobenzene	8	<10	29.18	!
Bromodichloromethane	2	<10	15.69	
Bromoform	4	<10	21.24	
Bromomethane	24	LZ4	2.85	
Carbon tetrachloride	3	<10	15.47	:
Chloroacetaldehyde	10	<10	11.6	
Chloral	10	<10	18.7	;
Chlorobenzene	5	<10	26.01	:
Chloroethane	10	<10	4.51	
Chloroform	1	<10	13.01	1
1-Chlorohexane	2	<10	26.58	i
2-Chloroethyl vinyl ether	. 3	<10	19.49	
Chloromethane	. 2	<10	1.95	
Chloromethyl methyl ether	20	(20	9.37	
Chlorotoluene	4	<10	37.9	
Dibromochloromethane	2	<10	18.68	;

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Compound		oncentrati		Retention	Time Notes
	Det Lim	Column 1	Column 2	Column 1 Co	olumn 2
Dibromomethane	1	<10	<u> </u>	13.09	
1,2-Dichlorobenzene	33	<10	1	60.10	<u> </u>
1,3-Dichlorobenzene	6	<10	! :	42.90	
1,4-Dichlorobenzene	5	<10	<u> </u>	37 - 28	· · ·
Dichlorodifluoromethane	_ ٥	<30	<u> </u>	3.54	;
1,1-Dichloroethane	11	<10	<u> </u>	11.67	· · · · · · · · · · · · · · · · · · ·
1,2-Dichloroethane	1	<10		13.55	;
1,1-Dichloroethylene	3	<10		10.31	!
trans-1,2-Dichloroethylene	2	<10	1	12.35	ı
Dichloromethane	5	<10	İ	7.50	:
1,2-Dichloropropane	1	<10		17.19	
	 - -			17.24	:
1,3-Dichloropropylene	6	<10		18.68	
1,1,2,2-Tetrachloroethane	7	<10	1	23.47	
1,1,1,2-Tetrachloroethane	7	<10	!	21.04	-
Tetrachloroethylene	1	<10		23.47	İ
1,1,1-Trichloroethane	1	<10		14.76	İ
1,1,2-Trichloroethane	1	<10		18.68	1
Trichloroethylene	2	<10		17.91	:
Trichlorofluoromethane	11	<10		8.58	
Trichloropropane	2	<10	İ	23.01	!
Vinyl chloride	4	<10	!	3.54	
	:		1		
	:	!	: 	!	· · · · · · · · · · · · · · · · · · ·
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^{*} If * moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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ES Job No. 56528	Lab Sample No	1-86-1030
Client U.S. Air Force	Field Sample No.	3-ES-15, 55-1,0-2'
Project PJKS (Denver)	Date Collected	•
Client No.	Date Received _	1/3/86
Laboratory Supervisor Approval:	Date Analyzed	1/8/86
Johnna R Odamonn Sample Matrix D	OC Report No	565 28-8
/ / Water (ug/L)	Dilution Factor	
<u>/X</u> / Soil (ug/g)	*Moisture	
/ / Other		

Compound	c	oncentrat:	ion	Retenti	on_ Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4_	<10		2.26		
Chlorobenzene	. 4	<10		16.46		
1,2-Dichlorobenzene	8	<10	<u> </u>	27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		·
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. <u>56528</u>	Lab Sample No.	1-86- 1031
Client U.S. Air Force	Field Sample No.	3-ES-15,55 -2 2-4
Project PJKS (Denver)	Date Collected	1/2/86
Client No.	Date Received	1/3/86
Laboratory Supervisor Approval:	Date Analyzed	1/5/86
Johnny R. Odamson Sämple Matrix:	OC Report No.	56528-8
/_/ Water (ug/L)	Dilution Factor _	
<u>/X</u> / Soil (ug/g)	*Moisture	8
// Other		

c	oncentrat	ion	Retentio	on Time	Notes
Det Lim	Column 1	Column 2	Column 1	Column 2	
4	<10		2.26		
4	<10		16.46		
.8	<10		27.93		
8	<10		26.40		
. 6	<10		22.51		
. 4	<10		7.18		
. 4	<10		5.47		
4	<10		15.26 16.91 17.77		
					<u>. </u>
<u> </u>					
	Det Lim	Det Lim Column 1 .4 <10 4 <10 8 <10 6 <10 4 <10 .4 <10 .4 <10	4 <10 4 <10 8 <10 8 <10 6 <10 4 <10 4 <10	Det Lim Column 1 Column 2 Column 1 .4 <10 2.26 4 <10 16.46 .8 <10 27.93 .8 <10 26.40 .6 <10 22.51 .4 <10 7.18 .4 <10 5.47	Det Lim Column 1 Column 2 Column 1 Column 2 .4 <10 2.26 4 <10 16.46 .8 <10 27.93 8 <10 26.40 .6 <10 22.51 .4 <10 7.18 .4 <10 5.47

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No.	1-86-1082
Client U.S. Air Force	Field Sample No.	3- £8-15, 55-3,5-7
ProjectPJKS (Denver)	Date .Collected _	1/9/86
Client No.	Date Received _	1/10/86
Laboratory Supervisor Approval:	Date Analyzed _	1/13/86
Johnny P. adamson Sample Matrix:	OC Report No	565 28 - 9
/_/ Water (ug/L)	Dilution Factor	
<u>/X</u> / Soil (ug/g)	*Moisture	
/ / Other		

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10000	OT:	ES Job No		La	b Sample N	10.	1-86-	1082
		Client U.S. Air Force						
	(M)	Project FJKS (Denver)					1/9/86	
•		Client No.			te Receive			
	X	Laboratory Supervisor Appro		-	te Analyza			_
22.22.22.22	***	Johnny R. ad.			Report No			
N		Sample Matrix:						
Š		/// Water (ug/L)		Di	lution Fac	tor		
	<i>ម</i> ត	/X / Soil (ug/g)		*Mo	isture			
*****	***	/_/ Other				· · ·	,,	
8	iş Fi	Compound	C		ion	Retenti	on Time	Notes
	R	_	Det Lim	Column 1	Column 2	Column 1	Column 2	
X	ΩÚ	Benzene	4	<10		2.26		
, ce	•	. Chlorobenzene	. 4	<10		16.46		<u> </u>
55555X	S	1,2-Dichlorobenzene	8	<10		27.93		
ď	3	1,3-Dichlorobenzene	8	<10		26.40		
3	_	1,4-Dichlorobenzene	6	<10		22.51		
3-1		Ethyl benzene	4	<10		7.18		
	❖	Toluene	. 4	<10		5.47		
	33			,		15.26		i
3						16.91		
	Sa.	Xylenes (Dimethyl benzene)	4	<10		17.77	<u> </u>	
1000000	X		<u></u>				1	1
	A .		<u>'</u>				1	
	***		}	<u> </u>				1
				<u>'</u>		<u></u>	 	•
	3	* If % moisture is reporte	d, resul	ts are pr	esented or	a dry-w	eight bas	is.
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No. 1-86- 1083	
Client	U.S. Air Force	Field Sample No. 3-ES-15 SC-4 8	-10
Project	PJKS (Denver)	Date-Collected ./9/86	
Client No.		Date Received 1/10/86	
Laboratory	Supervisor Approval:	Date Analyzed 1/13/86	
John Sample Mat	rix: Odamsı	OC Report No	
/	Water (ug/L)	Dilution Factor	
<u>/x</u> _/	Soil (ug/g)	*Moisture	
/	Other		

Compound	C	oncentrat	ion	Retention Time		Notes
•	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	. 4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	. 6	<10		22.51		
Ethyl benzene	.4	<10		7.18		<u> </u>
Toluene	.4	<10		5.47	1	
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No	1-86-1084	
Client	U.S. Air Force	Field Sample No.	3-ES-15, SS-5,1	1.5-13
Project	PJKS (Denver)	Date -Collected _	119/86	
Client No.		Date Received	1/10/86	
Laboratory	Supervisor Approval:	Date Analyzed	1/13/86	`
Sample Matr	2. Odamom	OC Report No.	56528-9	
/_/ W	Water (ug/L)	Dilution Factor _		
<u>/x</u> / s	Soil (ug/g)	*Moisture	•	
, , ,) the w			

Compound	C	oncentrat:	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	. 8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		_
Ethyl benzene	. 4	<10		7.18		
Toluene	.4	<10		5.47	!	•
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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Lab Sample No	1-86-1085	
Field Sample No.	3-ES-15, SS-6, 13.4	-15,
Date -Collected	1/4/86	
Date Received	1/10/86	
Date Analyzed	1/13/86	
OC Report No.	56528-9	
Dilution Factor		
*Moisture		
		
	Field Sample No. Date Collected Date Received Date Analyzed OC Report No. Dilution Factor	OC Report No. 56528-9 Dilution Factor

Compound	Concentration			Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	. 4	<10		2.26		
Chlorobenzene	.4	<10	<u> </u>	16.46		
1,2-Dichlorobenzene		<10		27.93		
1,3-Dichloropenzene	8	<10		26.40		
1,4-Dichlorobenzene	.6	<10		22.51	<u> </u>	
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	44	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No	1-86-1032
Client U.S. Air Force	Field Sample No.	3-ES-16 SS-1 6-2
Project PJKS (Denver)	Date Collected _	12/86
Client No.	Date Received _	1/3/86
Laboratory Supervisor Approval:	Date Analyzed _	1/8/36
Johnny R. Odamorn Sample Matrix	OC Report No	56528-8
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	•
Benzene	. 4	<10		2.26		
Chlorobenzene	4	<10		16.46	1	
1,2-Dichlorobenzene	. 8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	_4	<10		7.18		
Toluene	. 4	<10		5.47		
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No	1-86-1033
Client _	U.S. Air Force	Field Sample No.	3-ES-16 SS-2, 2-4
Project _	PJKS (Denver)	Date Collected	1/2/56
Client No	•	Date Received	1/3/86
Laborator	y Supervisor Approval:	Date Analyzed	10/86
Sample Mar	Lrix P. Odamom	OC Report No.	56528-8
/	Water (ug/L)	Dilution Factor _	
<u>/x</u> _/	Soil (ug/g)	*Moisture	8
/ /	Other		

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46	<u> </u>	
1,2-Dichlorobenzene	88	<10		27.93		
1,3-Dichlorobenzene	. 8	<10		26.40		
1,4-Dichlorobenzene	. 6	<10		22.51	<u> </u>	
Ethyl benzene	. 4	<10		7.18		
Toluene	,4	<10		5.47	_	_
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		
				1		
				1		
	<u> </u>			-		<u> </u>
	<u> </u>			 		

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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Report		

ES Job No. 56528	Lab Sample No. 1-86-1034
Client U.S. Air Force	Field Sample No. 2-FS-K SS-3.5-7
Project PJKS (Denver)	Date Collected 1/2/86
Client No.	Date Received 1/3/66
Laboratory Supervisor Approval:	Date Analyzed 1/9/86
Johnny Colamon Sample Matrix:	OC Report No. <u>56528-8</u>
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture %
/_/ Other	

Compound	C	cncentrat	ion	Retentio	n_Time	Notes
	Det Lim	Column 1	Column	2 Column 1	Column 2	: !
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	88	<10		27.93		
1,3-Dichlorobenzene	. 8	<10		26.40		
1,4-Dichlorobenzene	66	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	. 4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
· .					<u> </u>	
					<u> </u>	

^{*} If % moisture is reported, results are presented on a dry-weight basis.

Page _	_ of	
Report		

ES Job No.	56528	Lab Sample No	1-86-103	<u>5</u>
Client	U.S. Air Force	Field Sample No.	3-ES-16, 55-4	_8 -
Project	PJKS (Denver)	Date Collected	12186	_
Client No.		Date Received	1/3/86	
Laboratory	Supervisor Approval:	Date Analyzed	1/9/86	_
<u>John</u> Sample Mat	rix: R adams.	OC Report No.	56528-8	_
/_/	Water (ug/L)	Dilution Factor		_
<u>/x</u> _/	Soil (ug/g)	*Moisture		-8
<u>/_</u> /	Other			
Sample Mat	rix: \(\) Water (ug/L) Soil (ug/g)	Dilution Factor	56528-8	

Compound	C	oncentrat:	ion	Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	.4	<10		16.46		ļ
1,2-Dichlorobenzene	. 8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	.4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
<u> </u>						•

^{*} If % moisture is reported, results are presented on a dry-weight basis.

Page	1	of	1
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ES Job No.	56528	Lab Sample No.	1-86-1036
Client	U.S. Air Force	Field Sample No.	9- F5-16 55-5 11-12
Project	PJKS (Denver)	Date Collected	
Client No.		Date Received	1/3/86
	Supervisor Approval:	Date Analyzed	1/9/86
Sample Matz	rix: O. adamoin	OC Report No.	56528-8
/_/ V	Nater (ug/L)	Dilution Factor _	·
<u>/x</u> / s	Soil (ug/g)	*Moisture	
/ / 0	other		

Compound	C	oncentrat:	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	. 8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	. 6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	. 4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
	<u> </u>					
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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Report			

ES Job No.	56528	Lab Sample No.	1-86-1637
Client	U.S. Air Force	Field Sample No.	1-86-1637 3-85-16, SS-6, 14-19
Project	FJKS (Denver)	Date Collected _	1/2/86
Client No.		Date Received _	1/3/86
Laboratory	Supervisor Approval:	Date Analyzed _	1/9/86
Sample Matr	Palamen	OC Report No	54528-8
<u>/_</u> / W	Water (ug/L)	Dilution Factor	
<u>/x</u> / s	Soil (ug/g)	*Moisture	•
<u>/_</u> / c	ther		

Compound		C	oncentrat	ion	Retenti	on Time	Notes
	Det :	Lim	Column 1	Column 2	Column :	Column 2	
Benzene		4	<10		2.26		
Chlorobenzene		4	<10		16.46		
1,2-Dichlorobenzene	<u> </u>	В	<10		27.93		
1,3-Dichlorobenzene		8	<10		26.40		
1,4-Dichlorobenzene		6	<10		22.51		
Ethyl benzene		4	<10		7.18		
Toluene		4	<10		5.47		
Xylenes (Dimethyl benzene)		4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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Engineering-Science	ANALYTICAL RESULTS SUMMARY Environmental Quality Parameters .	Page of 1
ES JOB 110. 56528		QC Report No.
Client US A12		Laboratory Supervisor Approval:
Project PJKS Plant	Sample Matrix:	yohim K. Lidaman
Client No.	// Water (ug/L)	Dilution Factor
Date Collected 1/2/86	Soil (ug/g) ug/kg)	*Moisture
Date Received U3/86	/ / Other	

-								<u>)</u>	<u> </u>) 	. · ·		, ,		
Notes														·	
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			21-1						1.20		<u></u>				
CX	40.17	40,17	40,17		40117	£1'0>	40'17	₹10.0>	<0,17 1×2	40,17	₹0.0>	(0.17)		02+20	2P1792
Lab Sample No.	86-1030	(03)	760)	(033	1034	1035	1036	, (03 7	5C1082	1083	1084	530/ /		Ξ°	
Cab	-10) /			/			→ +5	5-10 /		, ()	7.		·	
Field Sample No.	P3K5, 3-85-15, 51, 10-2' 101-86-1030	155, July 15	PJKS, 3-85-16, 551, 02	55-2,2-4	59.5-1	54,8-10	555, 11-12	٠	13K5.3-85-15-15-35-1/01-86-1082	1 55-4,8-10	, fr-su/5-55	SI-612-55 A		lyzed	Analytical Hethod
Field Sa	P3KS.3-8	\	9755.3-85		207			^ ^	P3K5,3-85			>		Date Analyzed	Analytic

[·] If a moisture is reported, results are presented on a dry-weight basis.

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Environmental Quality Parameters .. ANALYTICAL RESULTS SUMMARY

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56528 NS 1012 PIKS Date Collected Date Received ES Job No. Client No. Project Client

Soll (ug/g) Jug/Kg) / Water (ug/L) Sample Matrixi

Other

Laboratory Supervisor Approval: Dilution Fact OC Report No. dhom

*Moisture

Field Sample No.	Lab Sample No.	見り				Notes
P3K5, 3-55-15,551,0-2' 01-86-1030	0501-98-10	41.0>				
p.c. 1 >	(60)	40,17				·
9755, 3-85-16, 551, 02	7601	40,17				
,7-7'2-4'	(033	Õ		•		
β γ-γ, ζ-η'	1034					
84,8-10'	1035					
555, 11-12	1036	40'17				
W > 55-6, 14-15	(037	9	•			
13K5,3-85-15,15-35-71 01-86-1082	C301-78-10	الجار \\				
125-4,8-10	1083	40,17°				
55-5,415-13,	1084	₹0.0>			-	
\$1-613-55 A	5801	<0.17				
Date Analyzed	T D	02+41				
Analytical Method		2817 A93				
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If a moisture is reported, results are presented on a dry-weight basis.

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Results for Site 7 8010, 8020, Metals and Inorganic Parameters

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

Page _	<u>/</u>	of	7_
Report	_		

ES Job No. <u>56528</u>	Lab Sample No. 12-35-117	
Client U.S. Air Force	Field Sample No. $7-1$, $5D-1$	_
Project PJKS (Denver	Date Collected /2-19 85	
Client No.	Date Received	
Laboratory Supervisor Approval:	Date Analyzed 1/2/86	
John R adamin Sample Matrix:	QC Report No. PJK5-C5	
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	. 8
/ / Other		

Compound	С	oncentrat:	ion	Retenti	on Time	Notes
· .	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	ı	<10		40.9		•
<pre>bis(2-chloroethoxy) methane</pre>	12	1	-	44.2		
bis(2-chloroisopropyl) ether	25	125		42.2		
Bromobenzene	8	<10		29.48		<u> </u>
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24	<u> </u>	i !
Bromomethane	24	424		2.85		i
Carbon tetrachloride	.3	<10		15.47		ı
Chloroacetaldehyde	. 10	<10		11.6	· -	
Chloral	10	<10		18.7		
Chlorobenzene	.5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform		<10		13.01		
1-Chlorohexane	2.	<10		26.58	\	1
2-Chloroethyl vinyl ether	3	<10		19.49	İ	
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20_	20		9.37		:
Chlorotoluene	44	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

12-85-1197

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Compound		ncentrati		Retentio		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10		
1,3-Dichlorobenzene	. 6	<10		42.90	i 	
1,4-Dichlorobenzene	- 5	<10		37.28	:	!
Dichlorodifluoromethane	30	<30		3.54	!	<u> </u>
1,1-Dichloroethane	. 1	<10		11.67	t	!
1,2-Dichloroethane	11	<10		13.55		<u> </u>
1,1-Dichloroethylene	3	<10		10.31	<u> </u>	<u> </u>
trans-1,2-Dichloroethylene	2	<10		12.35	i 	<u> </u>
Dichloromethane	. 5	<10		7.50		!
1,2-Dichloropropane	. 1	<10		17.19		<u> </u>
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	. 7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	.1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	11	<10	<u> </u>	18.68		
Trichloroethylene	2	<10		17.91	_,	
Trichlorofluoromethane	- 1	<10		8.58	İ	
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	. 4	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

Page _	_	of	2
Report			

ES Job No. 56528	Lab Sample No	12-85-1198
Client U.S. Air Force	Field Sample No.	7-2,50-1
Project PJKS (Denver	Date Collected _	12-19-85
Client No.	Date Received	12-20-85
Laboratory Supervisor Approval:	Date Analyzed	1/2/56
John R adamsin- Sample Matrix:	QC Report No	PJK5-05
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	C	oncentrat:	ion	Retenti	on Time	Notes
-	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	(12		44.2		
bis(2-chloroisopropyl) ether	25	L 25		42.2		
Bromobenzene	8	<10	• •	29.18		
Bromodichloromethane	. 2	<10		15.69	<u>:</u>	
Bromoform	4	<10		21 .24	<u> </u>	
Bromomethane	. 24	<u> </u>		2.85		
Carbon tetrachloride	. 3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	.10	<10		4.51		
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58	<u> </u>)
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		<u> </u>
Chloromethyl methyl ether	_ 20	_ میک		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68	!	

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Co	oncentrati	.on	Retentio	n Time	Notes
·	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	. 3	<10		60.10		
1,3-Dichlorobenzene	6	<10		42.90	<u> </u>	
1,4-Dichlorobenzene	5	<10		37.28	i 	<u> </u>
Dichlorodifluoromethane	30	30		3.54	<u> </u>	
1,1-Dichloroethane	-1	<10		11.67		<u> </u>
1,2-Dichloroethane	. 1	<10		13.55		
1,1-Dichloroethylene	. 3	<10		10.31		<u> </u>
trans-1,2-Dichloroethylene	2	<10		12.35		
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10	•	23.47	••	
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	. 1	<10		14.76	•	
1,1,2-Trichloroethane	1	<10	•	18.68	•	
Trichloroethylene	2	<10		17.91		
Trichlorofluoromethane	.1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	. 4	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No	12-55-1177
Client U.S. Air Force	Field Sample No.	7-3, 50-1
Project PJKS (Denver	Date Collected	12-19-85
Client No.	Date Received	12-20-85
Laboratory Supervisor Approval:	Date Analyzed	1/2/86
Johnne R Colombin Sample Matrix:	QC Report No	FJKS-C5
/ / Water (ug/L)	Dilution Factor _	
<u>/X</u> / Soil (ug/g)	*Moisture	
/ / Other		

. Compound	Concentration			Retention Time		Notes
-	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	. 25	\25		42.2		
Bromobenzene	8	<10	• .	29.18		
Bromodichloromethane	2	<10		15.69	• .	
Bromoform	4	<10	-	- 21.24	-	
Bromomethane	24	124		2.85		
Carbon tetrachloride	.3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	. 1	<10		13.01	١	
1-Chlorohexane	2	<10 ·		26.58		1
2-Chloroethyl vinyl ether	. 3	<10		19.49	<u> </u>	
Chloromethane	2	·<10		1.95		
Chloromethyl methyl ether	.20	(23		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	. 2	<10		18.68	!	

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	· Co	ncentrati	on	Retentio	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane		<10		13.09	İ	
1,2-Dichlorobenzene		<10		60.10	<u>!</u>	
1,3-Dichlorobenzene	.6	<10	<u> </u>	42.90	<u>:</u>	
1,4-Dichlorobenzene	. 5	<10		37.28	<u>:</u>	
Dichlorodifluoromethane	. 30	<3c		3.54	!	
1,1-Dichloroethane	11	<10		11.67		<u>i</u>
1,2-Dichloroethane	11	<10		13.55	<u> </u>	
1,1-Dichloroethylene	. 3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35	į	
Dichloromethane	5_	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	. 7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	. 1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91	,	
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	. 4	<10		3.54		
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^{*} If * moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Report	_		

ES Job No. <u>56528</u>	Lab Sample No. $\frac{12-55-1200}{1}$
Client U.S. Air Force	Field Sample No. 7-4, SD-1
Project PJKS (Denver	Date Collected 12-19-85
Client No.	Date Received
Laboratory Supervisor Approval:	Date Analyzed 1/2/86
John R adamson Sample Matrix:	QC Report No. PJK5-05
// Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/_/ Other	

Compound	Concentration			Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		•
bis(2-chloroethoxy) methane	12	<12		44.2		
bis(2-chloroisopropyl) ether	. 25	Las		42.2		
Bromobenzene	3	<10	٠.	29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	.4	<10		21 .24	1	
Bromomethane	24	444		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	۔10	<10		11.6		·
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	. 1	<10		13.01		
1-Chlorohexane	2	<10		26.58)
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	. 20	40		9.37		
Chlorotoluene	. 4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Concentration			Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	. 1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10	<u> </u>	
1,3-Dichlorobenzene	6	<10		42.90	:	
1,4-Dichlorobenzene	5	<10		37.28		<u> </u>
Dichlorodifluoromethane	30	< 30		3.54	;	<u> </u>
1,1-Dichloroethane	1	<10		11.67	<u> </u>	!
1,2-Dichloroethane	. 1	<10		13.55	; !	<u> </u>
1,1-Dichloroethylene	3	<10		10.31	İ	!
trans-1,2-Dichloroethylene	. 2	<10		12.35	,	<u> </u>
Dichloromethane	. 5	<10		7.50		į
1,2-Dichloropropane	1	<10		17.19	1:	1
	-			17.24		1
1,3-Dichloropropylene	6	<10		18.68		<u>į</u>
1,1,2,2-Tetrachloroethane	7	<10		23.47	!	1
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	. 1	<10	• •	23.47		<u> </u>
1,1,1-Trichloroethane	1	<10		14.76	• •	<u> </u>
1,1,2-Trichloroethane	1	<10		- 18.68	i I	<u> </u>
Trichloroethylene	2	<10		17.91	į,	
Trichlorofluoromethane	1	<10		8.58	ļ	1
Trichloropropane	. 2	<10		23.01		
Vinyl chloride	4	<10		3.54		
	!			!		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Report	_		

ES JOD NO. 56528	Tap Sambie No	12 33 - 1201
Client U.S. Air Force	Field Sample No.	7-5, SD-1
Project PJKS (Denver	Date Collected	12-19-85
Client No.	Date Received	12-20-85
Laboratory Supervisor Approval:	Date Analyzed	12/86
Johnson R adamson	QC Report No	PJK3-06
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		•
<pre>bis(2-chloroethoxy) methane</pre>	.1 2	<12		44.2		
bis(2-chloroisopropyl) ether	25	125		42.2		1
Bromobenzene	.8	<10		29.18	<u> </u>	
Bromodichloromethane	. 2	<10		15.69	<u> </u>	
Bromoform	4	<10		- 21.24	<u> </u>	
Bromomethane	24	424		2.85	<u> </u>	
Carbon tetrachloride	3	<10		15.47	1	ı
Chloroacetaldehyde	.10	<10		11.6	!	
Chloral	10	<10		18.7	1	
Chlorobenzene	5	<10		26.01	<u> </u>	
Chloroethane	. 10	<10		4.51	!	
Chloroform	1	<10		13.01	<u> </u>	
1-Chlorohexane	2	<10		26.58	<u> </u>	·
2-Chloroethyl vinyl ether	3 .	<10	<u> </u>	19.49		
Chloromethane	. 2	<10		1.95	<u> </u>	
Chloromethyl methyl ether	20	420		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68	!	

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CONTROL CONTROL CONTROL STATEMENT STATEMENT STATEMENT

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Concentration			Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	.3	<10		60.10	<u>i</u>	<u> </u>
1,3-Dichlorobenzene	6	<10		42.90	<u> </u>	<u></u>
1,4-Dichlorobenzene	. 5	<10		37.28	:	
Dichlorodifluoromethane	30	<30		3.54	<u>i</u>	<u> </u>
1,1-Dichloroethane	11	<10		11.67	i	
1,2-Dichloroethane	1	<10	<u> </u>	13.55	<u>:</u>	:
1,1-Dichloroethylene	3	<10		10.31	!	1
trans-1,2-Dichloroethylene	2	<10	<u>;</u>	12.35	:	i
Dichloromethane	. 5	<10		7.50		!
1,2-Dichloropropane	-1	<10		17.19	;	
				17.24		!
1,3-Dichloropropylene	.6	<10		18.68		<u> </u>
1,1,2,2-Tetrachloroethane	.7	<10		23.47		
1,1,1,2-Tetrachloroethane	<i>,</i> 7	<10		21.04		
Tetrachloroethylene	_ 1	<10		23.47		
1,1,1-Trichloroethane	1 1	<10		14.76		
1,1,2-Trichloroethane	1	<10	-	18.68		
Trichloroethylene	2	<10	• .	17.91	<u> </u>	
Trichlorofluoromethane	1 1	<10		8.58	<u> </u>	
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	.4	<10		3.54		
	!			1		
	:				1	
	•			!		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No56528	Lab Sample No	12-85-1207
Client U.S. Air Force	Field Sample No.	7-6,50-1
Project PJKS (Denver	Date Collected	12-19-85
Client No.	Date Received	12-20-85
Laboratory Supervisor Approval:	Date Analyzed	1/2/86
John, R. adams. Sample Matrix:	QC Report No.	PJKS-06
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	Concentration			Retention Time		Notes
	Det Lim	Column	1 Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	.12	CIL		44.2		
bis(2-chloroisopropyl) ether	25	L 25		42.2		
Bromobenzene	8	<10	<u> </u>	29.18		
Bromodichloromethane	2	<10		75.69		
Bromoform	. 4	<10	1.	21.24	•	
Bromomethane	. 24	<24		2.85		
Carbon tetrachloride	3	<10		15.47		!
Chloroacetaldehyde	10	<10	<u> </u>	11.6	!	
Chloral	. 10	<10		18.7		
Chlorobenzene	.5	<10		26.01		i
Chloroethane	10	<10	<u> </u>	4.51	ļ	
Chloroform	1	<10		13.01	<u> </u>	
1-Chlorohexane	_2	<10	<u> </u>	26.58	<u> </u>	
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	. 2	<10		1.95		
Chloromethyl methyl ether	20	420		9.37		
Chlorotoluene	• 4	<10		37.9		
Dibromochloromethane	2	<10	.	18.68	<u> </u>	

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

1 3 6 5	<10 <10 <10	Column 2	13.09	Column 2	<u> </u>
. 3	<10		i		
6			1		
	/ /10		60.10	<u>!</u>	ļ
5			42.90	:	<u> </u>
	<10		37.28	:	
30	430		3.54	!	
. 1	<10		11.67		ļ
11	<10		13.55	!	<u> </u>
3	<10		10.31		<u> </u>
2	<10		12.35	· ·	<u> </u>
. 5	<10		7.50		1
1	<10		17.19	1	
			17.24	1	
5	<10		18.68		<u> </u>
7	<10		23.47		
7	<10		21.04		
_ 1	<10	•	23.47		<u> </u>
1	<10	<u> </u>	14.76		
1	<10	<u> </u>	18.68	'† †	<u> </u>
. 2	<10		17.91		
1	<10		8.58	1	
2	<10		23.01	1	
4	<10	1	3.54		
			!	†	
		!			
·		İ		:	
	:				
	1 1 3 2 5 1 5 7 7 1 1 1 2 1	.1 <10 1 <10 2 <10 2 <10 .5 <10 1 <10	1 <10 1 <10 2 <10 2 <10 5 <10 7 <10 7 <10 1 <10 1 <10 1 <10 1 <10 2 <10 1 <10 2 <10 2 <10	1 <10	1 <10

^{*} If * moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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Repor	t _		

ES Job No56528	Lab Sample No. $\frac{12-35-1203}{}$
Client U.S. Air Force	Field Sample No. 7-7, SD-1
Project PJKS (Denver	Date Collected
Client No.	Date Received 12-20-85
Laboratory Supervisor Approval:	Date Analyzed 1/2/56
Johnny Colombin Sample Matrix:	OC Report No. PJKS - Cic
/ / Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/ / Other	

Compound	Concentration			Retention Time		Notes
•	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10	1	40.9		•
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	(25		42.2		
Bromobenzene	8	<10	• •	29.18		
Bromodichloromethane	2	<10		15.69	•	
Bromoform	· 4	<10		- 21.24		
Bromomethane	. 24	124	<u> </u>	2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10	<u> </u>	11.6		· ·
Chloral	10	<10		18.7	·	
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		i
1-Chlorohexane	. 2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	120		9.37	•	
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	. 2	<10	į	18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Co	oncentrati	on	Retentio	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	.1	<10	<u> </u>	13.09		<u> </u>
1,2-Dichlorobenzene	3	<10		60.10	<u> </u>	
1,3-Dichlorobenzene	6	<10		42.90	;	
1,4-Dichlorobenzene	5	<10		37.28	ı	<u> </u>
Dichlorodifluoromethane	. 30	<u> </u>		3.54	!	<u> </u>
1,1-Dichloroethane	.1	<10		11.67	1	
1,2-Dichloroethane	1	<10		13.55	!	<u> </u>
1,1-Dichloroethylene	. 3	<10		10.31	<u> </u>	<u> </u>
trans-1,2-Dichloroethylene	. 2	<10		12.35	<u> </u>	<u> </u>
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	, 1	<10		17.19		<u> </u>
	İ			17.24		
1,3-Dichloropropylene	6	<10	<u></u>	18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04	•	<u> </u>
Tetrachloroethylene	1	<10	• .	23.47	!	<u> </u>
1,1,1-Trichloroethane	1 1	<10		14.76		
1,1,2-Trichloroethane	1	<10	-	- 18.68	<u> </u>	
Trichloroethylene	2	<10	• .	17.91	<u> </u>	
Trichlorofluoromethane	<u> </u>	<10		8.58	!	ļ
Trichloropropane	2	<10		23.01	1	
Vinyl chloride	4	<10		3.54	-	
	!	<u> </u>		i	-	<u> </u>
	i				!	
	<u> </u>			<u>!</u>	<u>i</u>	1
•	:		<u> </u>	:		<u> </u>
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No	12-85-1264
Client U.S. Air Force	Field Sample No.	7-8, SD-1
Project PJKS (Denver	Date Collected	12-19-95
Client No.	Date Received	12-20-35
Laboratory Supervisor Approval:	Date Analyzed	1/2/86
John R. adamson Sample Matrix:	QC Report No	PJKS-CL
/_/ Water (ug/L)	Dilution Factor _	
<u>/X /</u> Soil (ug/g)	*Moisture	
/ / Other		

Compound	С	oncentrat	ion	Retenti	on Time	Notes
-	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2		
<pre>bis(2-chloroisopropyl) ether</pre>	.25	US		42.2		
Bromobenzene	3	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		- 21.24	<u> </u>	
Bromomethane	24	24	• .	2.85	<u> </u>	
Carbon tetrachloride	3	<10		15.47	<u> </u>	
Chloroacetaldehyde	10	<10		11.6		
Chloral	.10	<10		18.7	<u></u>	
Chlorobenzene	5	<10		26.01		
Chloroethane.	10	<10		4.51	<u> </u>	
Chloroform	1	<10		13.01	<u> </u>	<u> </u>
1-Chlorohexane	2	<10		26.58	<u> </u>	·
2-Chloroethyl vinyl ether	ر 3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	.20	ر2ك		9.37		
Chlorotoluene	-4	<10	·	37.9		
Dibromochloromethane	2	<10		18.68	!	

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1,2-Dichloropropane

1,3-Dichloropropylene

Tetrachloroethylene

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichlorofluoromethane

Trichloroethylene

Trichloropropane

Vinyl chloride

1,1,2,2-Tetrachloroethane

1,1,1,2-Tetrachloroethane

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17.19 17.24

18.68

23.47

21.04

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14.76

17.91

8.58

23.01

3.54

18.68

Compound Concentration Retention Time Notes Det Lim Column 1 Column 2 Column 1 Column 2 <10 13.09 Dibromomethane 1 60.10 3 <10 1,2-Dichlorobenzene <10 42.90 1,3-Dichlorobenzene 6 <10 37.28 1,4-Dichlorobenzene 5 **430** 3.54 Dichlorodifluoromethane 30 1,1-Dichloroethane <10 11.67 <10 1,2-Dichloroethane 13.55 1,1-Dichloroethylene <10 3 10.31 trans-1,2-Dichloroethylene 2 <10 12.35 5 <10 Dichloromethane 7.50

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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No	12-85-1205
Client U.S. Air Force	Field Sample No.	7-9,5D-1
Project PJKS (Denver	Date Collected	12-19-85
Client No.	Date Received	12-20-85
Laboratory Supervisor Approval:	Date Analyzed	1/2/86
John R. adaman Sample Matrix:	QC Report No	PJKS - 06
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	C	Concentration			Retention Time		
-	Det Lim	Column 1	Column 2	Column	Column 2		
Benzyl chloride	4	<10		40.9			
bis(2-chloroethoxy) methane	12	<12	-	44.2			
bis(2-chloroisopropyl) ether	25	/25		42.2			
Bromobenzene	3	<10	٠.	29.18			
Bromodichloromethane	2	<10		15.69	<u> </u>		
Bromoform	.4	<10		21.24	1		
Bromomethane	24	124		2.85	,		
Carbon tetrachloride	3	<10		15.47			
Chloroacetaldehyde	.10	<10		11.6			
Chloral	10	<10		18.7			
Chlorobenzene	5	<10		26.01			
Chloroethane '	- 10	<10		4.51			
Chloroform	1	<10		13.01			
1-Chlorohexane	2	<10		26.58	<u> </u>) 	
2-Chloroethyl vinyl ether	. 3	<10		19.49	<u> </u>		
Chloromethane	.2	<10		1.95	<u> </u>		
Chloromethyl methyl ether	. ,20	410		9.37			
Chlorotoluene	. 4	<10		37.9			
Dibromochloromethane	2	<10		18.68			

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Co	oncentrati	ion Retention Time	Notes
	Det Lim	Column 1	Column 2 Column 1 Column :	2
Dibromomethane	.1	<10	13.09	
1,2-Dichlorobenzene	. 3	<10	60.10	
1,3-Dichlorobenzene	6	<10	42.90	
1,4-Dichlorobenzene	5	<10	37.28	
Dichlorodifluoromethane	₋ 30	430	3.54	
1,1-Dichloroethane	1	<10	11.67	
1,2-Dichloroethane	1	<10	13.55	
1,1-Dichloroethylene	3	<10	10.31	!
trans-1,2-Dichloroethylene	.2	<10	12.35	
Dichloromethane	5	<10	7.50	
1,2-Dichloropropane	1	<10	17.19	
			17.24	
1,3-Dichloropropylene	5	<10	18.68	
1,1,2,2-Tetrachloroethane	. 7	<10	23.47	
1,1,1,2-Tetrachloroethane	7	<10	21.04	1
Tetrachloroethylene	ارا	<10	23.47	
1,1,1-Trichloroethane	<u></u>	<10	14.76	
1,1,2-Trichloroethane	! :1	<10	18.68	
Trichloroethylene	2ر	<10	17.91	
Trichlorofluoromethane	- ,1	<10	8.58	
Trichloropropane	2	<10	23.01	
Vinyl chloride	4	<10	3.54	1
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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Report	_		

ES Job No. 56528	Lab Sample No. 12-85-1197	
Client U.S. Air Force	Field Sample No. 7-1, SD-1, ES	
Project PJKS (Denver)	Date Collected 12/19/85	
Client No.	Date Received 12/20/85	
Laboratory Supervisor Approval:	Date Analyzed 1/2/86	_
Johnny R. adamson Sample Matrix	OC Report No. 56538-5	_
/_/ Water (ug/L)	Dilution Factor	_
<u>/X</u> / Soil (ug/g)	*Moisture	8
/ / Other		_

Compound	Concentration			Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	. 4	<10		16.46		
1,2-Dichlorobenzene	. 8	<10		27.93		
1,3-Dichlorobenzene	8	<10	•.	26.40	<u> </u>	
1,4-Dichlorobenzene	6	<10		22.51	<u> </u>	
Ethyl benzene	4	<10		7.18		
Toluene	.:4	<10		5.47		
				15.26		
Xylenes (Dimethyl benzene)	4	<10		16.91 17.77		
	• .					

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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ES Job No. 5652	8	Lab Sample No.	12-85-1198
Client U.S.	Air Force	Field Sample No.	7-2 SD-1 ES
Project PJKS	(Denver)	Date Collected	12/19/55
Client No.		Date Received	12/20/85
Laboratory Super	visor Approval:	Date Analyzed	1/2/86
Sample Matrix:	R. adamon	OC Report No.	5 6 5 28 - 5
<u>/</u> / Water	(ug/L)	Dilution Factor _	
/X / .Soil (ug/g)	*Moisture	8
<u>/</u> / Other			

Compound	Concentration_			Retention Time			Notes
	Det Lim	Column 1	Column 2	Column	1 0	Column 2	
Benzene	. 4	<10		2.26	j		
Chlorobenzene	4	<10		16.46	\perp		
1,2-Dichlorobenzene	e	<10		27.93			
1,3-Dichlorobenzene	. :8	<10	••	26.40			
1,4-Dichlorobenzene	. 6	<10		22.51		•	
Ethyl benzene	.4	<10	-	7.18			
Toluene		<10		5.47		•	
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77			
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. 12-85-	1199
Client U.S. Air Force	Field Sample No. 7 - 3 SD	
Project PJKS (Denver)	Date Collected 12/19/8	
Client No.	Date Received 12/20/6	5
Laboratory Supervisor Approval:	Date Analyzed 1/2/86	
Johnny R. adamsin Sample Matrix	OC Report No. 56528-5	
/_/ Water (ug/L)	Dilution Factor	
<u>/X</u> / Soil (ug/g)	*Moisture	%
/_/ Other		

۸ <u>ر</u>	Compound		Concentration			Retention Time		
X		Det Lim	Column 1	Column 2	Column	1 Column 2	1	
5	Benzene	. 4	<10		2.26			
	Chlorobenzene	.4	<10		16.46			
	1,2-Dichlorobenzene	. 8	<10	<u> </u>	27.93		<u> </u>	
	1,3-Dichlorobenzene	8	<10	<u> </u>	26.40			
.	1,4-Dichlorobenzene	6	<10		22.51	<u> </u>	<u> </u>	
	Ethyl benzene	4	<10		7.18	·	<u> </u>	
्रेन	Toluene		<10	•	5.47	<u> </u>	<u> </u>	
3	Xylenes (Dimethyl benze	ne) .4	<10		15.26 16.91 17.77			
3								
<u> </u>		•					1	
8	* If % moisture is repo	rted, resul	ts are pr	resented o	n a dry-	weight bas	is.	
_								
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No	. 56528	Lab Sample No	12-85-1200
Client _	U.S. Air Force	Field Sample No.	7-4, SD-1, ES
Project _	PJKS (Denver)	Date Collected	
Client No	•	Date Received	
Laborator	y Supervisor Approval:	Date Analyzed	1/2/86
Sample Ma		OC Report No	56528-5
/	Water (ug/L)	Dilution Factor _	
<u>/x</u> _/	Soil (ug/g)	*Moisture	
/	Other		

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	- 4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	. :8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51	•	
Ethyl benzene	4	<10	-	7.18 ⁻		
Toluene	. 4	<10		5.47	,	
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
Aylenes (Dimethyl benzene)		X10		1,.,,		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No.	12-85-1201
Client U.S. Air Force	=	. 7-552-1, ES
Project PJKS (Denver)	Date Collected _	
Client No.	Date Received	12/20/85
Laboratory Supervisor Approval:	Date Analyzed	1/2/86
John R. adamson Sample Matrix	OC Report No	54528-6
/_/ Water (ug/L)	Dilution Factor	
<pre>/X / Soil (ug/g)</pre>	*Moisture	<u> </u>
/_/ Other		

Compound	Concentration			Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	. 4	<10		16.46		
1,2-Dichlorobenzene	.8	<10	<u>.</u>	27.93		
1,3-Dichlorobenzene	8	<10	• •	26.40		
1,4-Dichlorobenzene	6	<10		22.51	1	
Ethyl benzene	_4	<10	7-	7.18		
Toluene	- 14	<10	1.5	5.47		
,				15.26		
Xylenes (Dimethyl benzene)	- ,4	<10		16.91 17.77		
·						!
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No 56528	Lab Sample No.	12-85-1202
Client U.S. Air Force	Field Sample No.	7-6.52-1, ES
Project PJKS (Denver)	Date Collected	
Client No.	Date Received	12/20/85
Laboratory Supervisor Approval:	Date Analyzed	1/2/86
Johnny R. adams (~ Sample Matrix)	OC Report No	56528-6
/_/ Water (ug/L)	Dilution Factor _	
<u>/X</u> _/ Soil (ug/g)	*Moisture	•
/ / Other		

Compound	Co	oncentrat	ion	Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	. ,4	<10		16.46		
1,2-Dichlorobenzene	: JB	<10		27.93		
1,3-Dichlorobenzene	. 8	<10		-26.40		
1,4-Dichlorobenzene	6	<10_		22.51	1.	
Ethyl benzene	. 4	<10		7:18		
Toluene	. ,4	<10		5.47	•	
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics

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s	W Method	8020	-
ES Job No56528		Lab Sample No	12-85-1203
Client U.S. Air Force		Field Sample No.	7-7,52-1, ES
Project PJKS (Denver)		Date Collected	12/19/85
Client No.		Date Received	12/20/85
Laboratory Supervisor Approval:		Date Analyzed	
Johnny R. adam Sample Matrix:	منص	OC Report No	
/_/ Water (ug/L)		Dilution Factor _	56528-6
<u>/X</u> / Soil (ug/g)		*Moisture	
<u>/</u> _/ Other			

Concentration Retention Time Note	one	Co	Compound	
t Lim Column 1 Column 2 Column 1 Column 2	C	Det Lim		
4 <10 2.26		4	Benzene .	
·4 <10 16.46	L	.4	Chlorobenzene	
		. ,8	1,2-Dichlorobenzene	
8 <10 26.40		.8	1,3-Dichlorobenzene	
6 <10 22.51		6	1,4-Dichlorobenzene	
4 <10 7.18		4	Ethyl benzene	
4 <10 5.47		.4	Toluene	
15.26 16.91 4 <10 17.77		. 4	Xylenes (Dimethyl benzene)	
	-			
	<u> </u>	•		

^{*} If * moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. 12-85-1204
Client U.S. Air Force	Field Sample No. 7 - 8 - SD - 1, €S
Project PJKS (Denver)	Date Collected 12/14/85
Client No.	Date Received 12/20/85
Laboratory Supervisor Approval:	Date Analyzed 1/2/86
Johnny R. adamson Sample Matrix	OC Report No. 56528-6
/_/ Water (ug/L)	Dilution Factor
/X / Soil (ug/g)	*Moisture
/_/ Other	

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10	<u> </u>	16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		-26 . 40		
1,4-Dichlorobenzene	∴6	<10		22.51	1.	
Ethyl benzene	.4	<10		7:18		
Toluene	4	<10	•	5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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ES Job No. 56528	Lab Sample No.	12-85-1205
Client U.S. Air Force	Field Sample No.	7-9, 5) -1 ES
Project PJKS (Denver)	Date Collected _	12/19/85
Client No.	Date Received _	12/20/85
Laboratory Supervisor Approval:	Date Analyzed _	1/2/86
Johnny R. adamson Sample Matrix	OC Report No	56528-6
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/_/ Other	•	

Compound	Concentration			Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	. 4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	. 8	<10		27.93		
1,3-Dichlorobenzene	8	<10	•	26.40		
1,4-Dichlorobenzene	.6	<10_		22.51		
Ethyl benzene	4	<10		7.18 -		
Toluene	. 4	<10		5.47		
xylenes (Dimethyl benzene)	4	<10_		15.26 16.91 17.77		

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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Notes 4 o l Laboratory Supervisor Approval: Report Page Dilution Factor Cohram OC Report No. Moisture 400 40,17 は、 9%,0 07.00 **小**ら \$ | |-1KN Environmental Quality Parameters 650 25/ 570 430 021 750 Soil (ug/g) (ug/Kg) ANALYTICAL RESULTS SUMMARY Other Sectimentes Phenolics **40.5** <0.5 <0.5 505 70.5 \$0,5 Water (ug/L) <0 \ Sample Matrix: **₹**0 30 1 9 ? % 0.08 90.0 0.08 80.0 0.90 Lab Sample No. イタグ PTKS, 7-1 SD-1 ES 1/2-85-1197 8611 380 1199 3 12/20-85 13-61/21 Denver 5.6528 ストタイ 3-2, 50-1, 55 7-3 50-1.85 SD-1. ES Engineering-Science 531-05 MKS, 7-6, 50-1.ES Field Sample No. Date Received Date Collected ES Job No. Client No. Project Client OKS

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cs timated nitrate is best a dry-weight basis. value of NOTEA! The reported • If \ moisture is reported, results are presented on

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Notes Report F Cohmmy R. adamo Dilution FactOr (Johnney) C Report No. *Moisture はい 40.17 今 子 う 501 B 5PA 354 | EPA 3534 | EPA 350, 1 | EPA 351, 3 | EM 314 Physial TKN Environmental Quality Parameters 200 160 (X) other Sediments 230 Soil (ug/g) (ug/Kg) ANALYTICAL RESULTS SUMMARY Water (ug/L) \<u>T</u> Sample Matrix: **S**S, Ü 2.08 Lab Sample No. | 100 7,0% 031 17-55-17 PJKS, 7-2 SD-1, ES 12-85-1203 70-25-67 12-19-85 18-02-21 PJKS DRIVER 26528 NSAF PIKS, 7-8 SD-1. ES Engineering-Science 17KS 49,50-1.ES Analytical Method Field Sample No. Date Analyzed Date Collected Date Received ES Job No. Client No. Project Client

* If a moisture is reported, results are presented on a dry-weight basis.

Note A: Reported virtua 4-05 Phanolics on Sorryte.

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Engineering-Science	ANALYTICAL Environmental	RESULTS Quality	SUMMARY Parameters		Page / of /
ES Job No. 56528 Client UNS AF	Sample Matrix:	a trix:		& Report No. Laboratory Su	Export No. Laboratory Supervisor Approval: Approval:
Client No.		Water (ug/L)		Dilution Factor	tor
Date Collected /1/19-85	13	Soil (ug/g) (ug/kg) Other <u>Sedimont(</u>	(ug/kg)	*Moisture	
Field Sample No. Lab Sample No.	V. 101	VD2 Prevelie	Phenolis TKN	CE	Notes
7611-13-61 22 12 17 17 17 10 10 10 10 10 10 10 10 10 10 10 10 10	7 201	}	071	0,40	
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value of nitrale is best estimated of four (4) analyses results and . If & moisture is reported, results are presented on a dry-weight basis. NOTEA! The reported

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Analytical Method

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SUMMARY Parameters Report	CC Report No. Laboratory Supervisor Approval: Calcuro Dilution Factor 9/Kg) *Moisture	160 KO.17 200 KO.17 230 KO.17		1 14 130 12 30 EPH 330 SPH 2476	ALACTOS OF SOMPTE
ANALYTICAL RESULTS SUMMARY Environmental Quality Paramet		1002 1013 Phinala TKN 2.18 5.6 <0.5 160 2.18 5.3 <0.5 200 2.18 1.20 1290		5 60 344. 10 m	ر مرد المرد المرد المرد المرد المرد المرد المرد المرد المرد المرد المرد المرد المرد المرد المرد المرد المرد الم
Engineering-Science	Client INSAF Client Project PSKS Denvek Client No. Date Collected 2-19-81 Date Received 12-20-81	Field Sample No. Lab Sample No. 97K5 2-120-1 ES 12-55-1263 PTK5,2-8 50-1 ES 12-55-1265 PTK5,27-1265			* If & moisture is reported, results

Results for Site 11 along Brush Creek 601, 602, 625, Metals and Inorganic Parameters

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

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Report	:		

ES Job No. <u>56528</u>	Lab Sample No. 3-86-1271	
Client U.S. AIR FORCE	Field Sample No. 11-0, Sw-	
Project PJKS (DENUER)	Date Collected 3/26	
Client No.	Date Received 3/27	
Laboratory Supervisor Approval:	Date Analyzed 3/27/86	
Johnny R. adamson Sample Matrix:	QC Report No. 56528 - 30	
/X / Water (ug/L)	Dilution Factor	
/ Soil (ug/g) (ug/Kg)	*Moisture	٩
/ / Other		

Compound	С	oncentrati	ion	Retent	ic	n Time	Notes
	Det Lim	Column 1	Column 2	Column	1	Column :	
	<u> </u>			L			<u> </u>
Bromodichloromethane	0.10	<10		15.69			
Bromoform	0.20	<10		21.24			I
Bromomethane	1.18	<10		2.85			
Carbon tetrachloride	0.12	<4.0		15.47	\Box		
Chlorobenzene	0.25	<10		26.01	\Box		
Chloroethane	0.52	<10		4.51			
2-Chloroethylvinyl ether	0.13	<10		19.49			
Chloroform	0.05	<10		13.01			
Chloromethane	0.08	<10		1.95			
Dibromochloromethane	0.09	<10		18.68	$_{\perp}$		
1,2-Dichlorobenzene	0.15	<10		60.1			
1,3-Dichlorobenzene	0.32	<10		42.9			
1,4-Dichlorobenzene	0.24	<10		37.3			
Dichlorodifluoromethane	1.81	<10		3.54	П		
1,1-Dichloroethane	0.07	<10		11.67			
1,2-Dichloroethane	0.03	<0.1		13.55			T
1,1-Dichloroethene	0.13	<10		10.31			
trans-1,2-Dichloroethene	0.10	<10		12.35	\neg		
1,2-Dichloropropane	0.08	<10		17.19	\neg		
cis-1,3-Dichloropropene	0.20	<10		18.68			
trans-1,3-Dichloropropene	0.10	<10	1	17.24			
Methylene chloride	0.25	<4.0		7.50			
1,1,2,2-Tetrachloroethane	0.03	<10		23.47			
Tetrachloroethene	0.03	<4.0		23.47			
1,1,1-Trichloroethane	0.03	<10		14.76			
1,1,2-Trichloroethane	0.02	<10		18.68			
Trichloroethene	0.12	<1.0		17.91			
Trichlorofluoromethane	0.01	<10		8.58			
Vinyl chloride	0.18	<10		3.54			
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528 ·	Lab Sample No	3-86-1270
Client U.S. Air Force	Field Sample No.	11-1, SW-3
Project PJKS (Denver)	Date Collected	——— ;·—) ·
Client No.	Date Received	3/27
Laboratory Supervisor Approval:	Date Analyzed	3/28/86
Johnny R. adamon Sample Matrix:	QC Report No.	5 65 28 - 30
/X_/ Water (ug/L)	Dilution Factor _	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/_/ Other		

Compound	c	oncentrat	ion	Retent	ion Time	Notes
•	Det Lim	Column 1	Column 2	Column	1 Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1 1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0	1	15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	1 0.52	<10		. 4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10	1	13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	10.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1 1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1	l	13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	33.6	<10	12.35	8,00	
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-D chloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10	ı	17.24		
Methylene chloride	0.25	<4.0	İ	7.50	1	
1,1,2,2-Tetrachloroethane	0.03	<10		23.47	7	
Tetrachloroethene	0.03	<4.0	1	23.47		
1,1,1-Trichloroethane	0.03	<10	1	14.76		
1,1,2-Trichloroethane	0.02	<10	!	18.68		
Trichloroethene	10.12	2.04	3. 38	17.91	10.41	
Trichlorofluoromethane	: 0.01	<10		8.58		
Vinyl chloride	0.18	55.2	< 10	3.54	3.25	
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^{*} If * moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

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ES Job No. 56528 ·	Lab Sample No.	3-86-1269
Client U.S. Air Force	Field Sample No.	11-2 3W-3
Project PJKS (Denver)	Date Collected	3/26
Client No.	Date Received	3/27
Laboratory Supervisor Approval:	Date Analyzed	_3/27/86
Johnny R. adamoin Sample Matrix:	QC Report No.	56528-30
/X / Water (ug/L)	Dilution Factor _	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/_/ Other		

Compound	c	oncentrati	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
:		440	<u> </u>	15.50	· <u></u>	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24	 	
Bromomethane	11.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10	<u> </u>	26.01		
Chloroethane	0.52	<10		4.51	<u> </u>	
2-Chloroethylvinyl ether	0.13	· <10	l	19.49	<u> </u>	
Chloroform	0.05	<10	<u> </u>	13.01	1	
Chloromethane	0.08	<10	L	1.95	<u> </u>	
Dibromochloromethane	0.09	<10		18.68	<u> </u>	
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10	İ	42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	10.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1	(13.55		
1,1-Dichloroethene	0.13	<10	i — ———	10.31		
trans-1,2-Dichloroethene	1 0.10	<10	-	12.35		
1,2-Dichloropropane	0.08	<10	l .	17.19		
cis-1,3-Dichloropropene	10.20	<10	ĺ	18.68	1	
trans-1,3-Dichloropropene	10.10	<10		17.24		
Methylene chloride	1 0.25	<4.0	l	7.50	1	1
1,1,2,2-Tetrachloroethane	1 0.03	<10	1	23.47	1	
Tetrachloroethene	i 0.03	<4.0	i	23.47		
1,1,1-Trichloroethane	10.03	<10		14.76		
. 1,1,2-Trichloroethane	10.02	<10	!	18.68		
Trichloroethene	10.12	<1.0	l	17.91		
Trichlorofluoromethane	: 0.01	<10		8.58		
Vinyl chloride	0.18	<10	i	3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528 ·	Lab Sample No. $3-86-1368$
Client U.S. Air Force	Field Sample No. 11-3 SW-2
Project PJKS (Denver)	Date Collected 3/26
Client No.	Date Received 3),7
Laboratory Supervisor Approval:	Date Analyzed 3/3//86
Johnny R. adamson	QC Report No. 56528-30
/X_/ Water (ug/L)	Dilution Factor
/_/ Soil (ug/g) (ug/Kg)	*Moisture
/	

Compound	Concentration		Retention Time	Notes
. •	Det Lim	Column 1 Column 2	Column 1 Column	2
		1		
Bromodichloromethane	0.10	<10	15.69	
Bromoform	0.20	<10	21.24	
Bromomethane	1.18	<10	2.85	<u> </u>
Carbon tetrachloride	0.12	<4.0	15.47	
Chlorobenzene	0.25	<10	26.01	L
Chlorocthane	0.52	<10	4.51	1
2-Chloroethylvinyl ether	0.13	<10	19.49	
Chloroform	0.05	<10	13.01	
Chloromethane	0.08	<10	1.95	
Dibromochloromethane	0.09	<10	18.68	
1,2-Dichlorobenzene	0.15	<10	60.1	
1,3-Dichlorobenzene	0.32	<10	42.9	
1,4-Dichlorobenzene	0.24	<10	37.3	
Dichlorodifluoromethane	1 .81	<10	3.54	
1,1-Dichloroethane	0.07	<10	11.67	
1,2-Dichloroethane	0.03	<0.1	13.55	T
1,1-Dichloroethene	0.13	<10	10.31	
trans-1,2-Dichloroethene	0.10	<10	12.35	1
1,2-Dichloropropane	1 0.08	<10	17.19	
cis-1,3-Dichloropropene	0.20	<,10	18.68	
trans-1,3-Dichloropropene	i 0.10	<10 I	17.24	
Methylene chloride	0.25	<4.0	7.50	
1,1,2,2-Tetrachloroethane	. 0.03	<10	23.47	
Tetrachloroethene	0.03	<4.0	23.47	
1,1,1-Trichloroethane	0.03	<10	14.76	
1,1,2-Trichloroethane	0.02	<10	18.68	
Trichloroethene	. 0.12	<1.0	17.91	
Trichlorofluoromethane	0.01	<10	8.58	
Vinyl chloride	0.18	<10	3.54	
	1			1
	1	1	1	<u> </u>

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528 ·	Lab Sample No.	3-86-1267
Client U.S. Air Force	Field Sample No.	11-4, SW-2
Project PJKS (Denver)	Date Collected	•
Client No.	Date Received	3/27
Laboratory Supervisor Approval:	Date Analyzed	3/27/86
Johnny R. Adamson Sample Matrix.	QC Report No.	56528-30
/X / Water (ug/L)	Dilution Factor _	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/ / Other		

Compound	Concentration Retention Time			Notes		
•	Det Lim	Column 1	Column 2	Column	1 Column 2	
				<u> </u>		
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1 1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0	1	15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10	-	19.49		
Chloroform	0.05	<10	ĺ	13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19	1	
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10	1	17.24		
Methylene chloride	0.25	<4.0	İ	7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	10.03	<10		14.76		
. 1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10	l	3.54	1	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528 ·	Lab Sample No. 3-86-1265
Client U.S. Air Force	Field Sample No. 11-5, SW-3
Project PJKS (Denver)	Date Collected 3/26
Client No.	Date Received 3/a7
Laboratory Supervisor Approval:	Date Analyzed 3/3/86
Johnny R. adamsonis Sample Matrix:	QC Report No. 56528-30
/X / Water (ug/L)	Dilution Factor
/_/ Soil (ug/g) (ug/Kg)	*Moisture
/ / Other	

Compound	Concentration Retention Time			Notes		
÷	Det Lim	Column 1;	Column 2	Column	1 Column 2	
	<u> </u>	<u> </u>		<u> </u>		
Bromodichloromethane	0.10	<10		15.69)
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
· Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	10.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1 1 .81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	10.10	<10 ·		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	i 0.10	<10		17.24		
Methylene chloride	10.25	<4.0 i		7.50		
1,1,2,2-Tetrachloroethane	! 0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	10.12	<1.0		17.91		
Trichlorofluoromethane	: 0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		
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<u> </u>	1	1			1	

^{*} If & moisture is reported, results are presented on a dry-weight basis.

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ES Job No. <u>56528</u> ·	Lab Sample No. 3-86-1266
Client U.S. Air Force	Field Sample No. $11-5$, $SW-4$
Project PJKS (Denver)	Date Collected 3/26
Client No.	Date Received $3\sqrt{27}$
Laboratory Supervisor Approval:	Date Analyzed 3/3/86
Johnny R. Odamor Sample Matrix:	QC Report No. 56528 - 30
/X_/ Water (ug/L)	Dilution Factor
/_/ Soil (ug/g) (ug/Kg)	*Moisture
/ / Other	

Compound	Concentration		Retent	Notes		
•	Det Lim	Column 1	Column 2	Column	1 Column 2	
<u>:</u>	1	<u> </u>	<u> </u>			
Bromodichloromethane	0.10	<10	i	15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10	[2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
, 2-Chloroethylvinyl ether	0.13	<10	!	19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10	i	37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1	i	13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10	i	12.35		
1,2-Dichloropropane	0.08	<10	i	17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10	1	17.24		
Methylene chloride	0.25	<4.0	i	7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10	1	14.76		
1,1,2-Trichloroethane	0.02	<10	1	18.68	1	
Trichloroethene	0.12	<1.0	Į .	17.91		
Trichlorofluoromethane	: 0.01	<10	!	8.58		
Vinyl chloride	0.18	<10	l	3.54		
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^{*} If * moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

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ES Job No. 56528 ·	Lab Sample No	3-86-1264
Client U.S. Air Force	Field Sample No.	11-6, SW-2
Project PJKS (Denver)	Date Collected	3/26
Client No.	Date Received	3/27
Laboratory Supervisor Approval:	Date Analyzed	3/31/86
Johnny R adamson Sample Matrix!	QC Report No.	56528 - 30
/X_/ Water (ug/L)	Dilution Factor _	
/ / Soil (ug/g) (ug/Kg)	*Moisture	
/ / Other		

Compound	Concentration		on	Retent	io	n Time	Notes
• •	Det Lim	Column 1:0	Column 2	Column	1	Column 2	
:							
Bromodichloromethane	0.10	<10		15.69	1		
Bromoform	0.20	<10		21.24			
Bromomethane	1.18	<10		2.85			
Carbon tetrachloride	0.12	<4.0		15.47			
Chlorobenzene	0.25	<10		26.01			
Chloroethane	0.52	<10		4.51			
2-Chloroethylvinyl ether	0.13	<10		19.49		•	
· Chloroform	0.05	<10		13.01			
Chloromethane	0.08	<10		1.95			
Dibromochloromethane	0.09	<10		18.68			
1,2-Dichlorobenzene	0.15	<10		60.1			
1,3-Dichlorobenzene	0.32	<10		42.9	T		
1,4-Dichlorobenzene	0.24	<10		37.3			
Dichlorodifluoromethane	1.81	<10		3.54			
1,1-Dichloroethane	0.07	<10		11.67	\neg		
1,2-Dichloroethane	0.03	<0.1		13.55			
1,1-Dichloroethene	0.13	<10		10.31	T		
trans-1,2-Dichloroethene	0.10	<10		12.35	- 1		
1,2-Dichloropropane	0.08	<10		17.19			
cis-1,3-Dichloropropene	0.20	<10		18.68	7		
trans-1,3-Dichloropropene	10.10	<10		17.24			
Methylene chloride	1 0.25	<4.0 i		7.50	\neg		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47			
Tetrachloroethene	i 0.03	<4.0		23.47			
1,1,1-Trichloroethane	0.03	<10		14.76			
1,1,2-Trichloroethane	0.02	<10 I		18.68			
Trichloroethene	10.12	<1.0		17.91			
Trichlorofluoromethane	0.01	<10 :		8.58			
Vinyl chloride	0.18	<10 I		3.54			
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528 ·	Lab Sample No. 3-86-12	63
Client U.S. Air Force	Field Sample No. 11-7, SW-	-2
ProjectPJKS (Denver)	Date Collected 3/26	
Client No.	Date Received 3/27	
Laboratory Supervisor Approval:	Date Analyzed 3/31 > 4/1/	86
Johnny R. adamsni Sample Matrix	QC Report No. 56528 - 3	<u>o</u>
/X_/ Water (ug/L)	Dilution Factor	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/ / Other		

Compound	С	oncentrati	ion	Retent	io	n Time	Notes
; !	Det Lim	Column 1	Column 2	Column	1	Column 2	
<u> </u>	<u> </u>	i	<u> </u>				
Bromodichloromethane	0.10	<10		15.69			
Bromoform	0.20	<10		21.24			
Bromomethane	i 1.18	<10		2.85	\Box		
Carbon tetrachloride	0.12	<4.0		15.47			
Chlorobenzene	0.25	<10		26.01	\Box		
Chloroethane	0.52	<10		4.51			
2-Chloroethylvinyl ether	0.13	<10		19.49			
Chloroform	0.05	<10		13.01			
Chloromethane	0.08	<10		1.95			
Dibromochloromethane	0.09	<10		18.68			
1,2-Dichlorobenzene	0.15	<10		60.1	\Box		
1,3-Dichlorobenzene	0.32	<10		42.9			
1,4-Dichlorobenzene	0.24	<10		37.3	П		
Dichlorodifluoromethane	1 1.81	<10		3.54	\neg		
1,1-Dichloroethane	0.07	<10		11.67	\neg		
1,2-Dichloroethane	0.03	<0.1	(13.55	\neg		
1,1-Dichloroethene	0.13	<10		10.31			
trans-1,2-Dichloroethene	0.10	<10		12.35	П		
1,2-Dichloropropane	0.08	<10	l	17.19			
cis-1,3-Dichloropropene	0.20	<10		18.68			
trans-1,3-Dichloropropene	0.10	<10	1	17.24			
Methylene chloride	1 0.25	<4.0	l .	7.50	7		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47			
Tetrachloroethene	0.03	<4.0	1	23.47			
1,1,1-Trichloroethane	0.03	<10		14.76]		
1,1,2-Trichloroethane	0.02	<10	!	18.68			
Trichloroethene	10.12	5.48	3.16	17.91		10,42	
Trichlorofluoromethane	0.01	<10	!	8.58			
Vinyl chloride	0.18	<10	1	3.54			
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^{*} If * moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528 ·	Lab Sample No	3/86-1262
Client U.S. Air Force	Field Sample No.	
Project PJKS (Denver)	Date Collected	
Client No.	Date Received	3/27
Laboratory Supervisor Approval:	Date Analyzed	3/3/186 2 4/1/86
Johnny R. adamoin Sample Matrix:	QC Report No	56528 - 30
/X_/ Water (ug/L)	Dilution Factor _	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/ / Other		

Compound	Concentration Re			Retent	Retention Time		
1	Det Lim	Column 1	Column 2	Column	1 Column 2		
<u> </u>	<u> </u>			<u> </u>			
* Bromodichloromethane	0.10	<10		15.69			
Bromoform	0.20	<10		21.24			
, Bromomethane	1.18	<10		2.85			
Carbon tetrachloride	0.12	<4.0		15.47			
Chlorobenzene	0.25	<10		26.01			
Chloroethane	0.52	<10		4.51			
2-Chloroethylvinyl ether	0.13	<10		19.49			
Chloroform	0.05	<10		13.01			
Chloromethane	0.08	<10		1.95			
Dibromochloromethane	0.09	<10		18.68			
1,2-Dichlorobenzene	0.15	<10		60.1			
1,3-Dichlorobenzene	0.32	<10_	1	42.9			
1,4-Dichlorobenzene	0.24	<10		37.3			
Dichlorodifluoromethane	1 1.81	<10		3.54			
1,1-Dichloroethane	0.07	<10		11.67			
1,2-Dichloroethane	0.03	<0.1	l	13.55			
1,1-Dichloroethene	0.13	<10		10.31			
trans-1,2-Dichloroethene	0.10	<10		12.35			
1,2-Dichloropropane	0.08	<10		17.19			
cis-1,3-Dichloropropene	0.20	<10	<u> </u>	18.68			
trans-1,3-Dichloropropene	<u>. </u>	<10	<u></u>	17.24			
Methylene chloride	1 0.25	<4.0	İ	7.50			
1,1,2,2-Tetrachloroethane	10.03	<10	i	23.47			
Tetrachloroethene	0.03	<4.0		23.47			
1,1,1-Trichloroethane	! 0.03	<10	1	14.76			
1,1,2-Trichloroethane	0.02	<10	!	18.68			
Trichloroethene	10.12	1.67	4.11	17.91	10.42		
Trichlorofluoromethane	: 0.01	<10	•	8.58			
Vinyl chloride	0.18	<10	1	3.54		~	
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^{*} If & moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528 ·	Lab Sample No.	3-86-1261
Client U.S. Air Force	Field Sample No.	11-4, SW-2
Project PJKS (Denver)	Date Collected	3/26
Client No.	Date Received	3/27
Laboratory Supervisor Approval:	Date Analyzed	3/31 24/1/86
Johnny R. Odamorr Sample Matrix:	QC Report No.	56528-30
/X / Water (ug/L)	Dilution Factor _	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/_/ Other		

Compound	Concentration Retention Time			Notes		
•	Det Lim	Column 1	Column 2	Column 1	Column 2	
	<u> </u>					
Bromodichloromethane	0.10	<10		15.69	1	
Bromoform	0.20	<10		21.24	<u> </u>	
Bromomethane	i 1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01	1	
Chloromethane	0.08	<10		1.95	<u> </u>	
Dibromochloromethane	0.09	<10		18.68	<u> </u>	
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
	. 0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10	!	18.68		
Trichloroethene	. 0.12	1.27	.3, 31	17.91	10.42	
Trichlorofluoromethane	0.01	<10		8.58		
· Vinyl chloride	0.18	<10		3.54		
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[•] If • moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528 ·	Lab Sample No	3-86-1260
Client U.S. Air Force	Field Sample No.	11-10, SW-2
Project PJKS (Denver)	Date Collected	3/26/86
Client No.	Date Received	3/27/86
Laboratory Supervisor Approval:	Date Analyzed	3/31 2 4/1/86
Johnny R. adamson Sample Matrix:	QC Report No.	<i>545</i> 28 - 30
/X / Water (ug/L)	Dilution Factor _	·
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/ / Other		

Compound	Concentration			Retent	Notes	
•	Det Lim	Column 1	Column 2	Column	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10	ł	1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	! 1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1	i	13.55		
1,1-Dichloroethene	0.13	<10		10.31	T	
trans-1,2-Dichloroethene	0.10	<10	!	12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10	i	18.68		
trans-1,3-Dichloropropene	0.10	<10	1	17.24		
Methylene chloride	10.25	<4.0	i	7.50		
. 1,1,2,2-Tetrachloroethane	0.03	<10	1	23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10	!	14.76		
1,1,2-Trichloroethane	0.02	<10	!	18.68		
Trichloroethene	0.12	2,20	6.55	17.91	10.12	
Trichlorofluoromethane	0.01	<10	T	8.58		
Vinyl chloride	0.18	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. <u>54528</u>	Lab Sample No. 3-86-1271	
Client U.S. AIR FORCE	Field Sample No. 11-C, SW-1	
Project PJKS (DENVER)	Date Collected 3/26	·
Client No.	Date Received 3/27	!
Laboratory Supervisor Approval:	Date Analyzed 3/27/86	
Johnne R. adamon Sample Matrix:	QC Report No. 56528 - 3	
/X / Water (ug/L)	Dilution Factor	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	\ `
/ / Other		,

Compound	c	oncentrat	ion	Retenti	on Time	Notes	1
	Det Lim	Column 1	Column 2	Column 1	Column 2		
Benze ne	0.2	40.7		2.26			ļ
Chlorobenzene	0.2	<10		16.46			_
1,2-Dichlorobenzene	0.4	<10	<u> </u>	20.44	<u> </u>	<u> </u>	į
1,3-Dichlorobenzene	0.4	<10	<u> </u>	.17.26			_[_
1,4-Dichlorobenzene	0.3	<10	ļ	16.56	<u> </u>	<u> </u>	
Ethylbenzene	0.2	<10		7.18	<u> </u>	ļ	
Toluene	0.2	<10		5.47			
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. 3-84-12	69
Client U.S. AIR FORCE	Field Sample No. 11-2, SW-	• 3
Project PJKS (DENVER)	Date Collected 3/26	
Client No.	Date Received 327	
Laboratory Supervisor Approval:	Date Analyzed 3/27/86	
Johnny R. adamson Sample Matrix:	QC Report No. 56528-31	
/X_/ Water (ug/L)	Dilution Factor	
/ Soil (ug/g) (ug/Kg)	*Moisture	&
/ / Other		

Compound	C	oncentrat	ion	Retenti	Notes	
	Det Lim	Column 1	Column 2	Column	Column 2	
Benze ne	0.2	40.7		2.26		
Chlorobenzene	0.2	<10	<u> </u>	16.46	·	
1,2-Dichlorobenzene	0.4	<10	<u> </u>	20.44		
1,3-Dichlorobenzene	0.4	<10		.17.26		
1,4-Dichlorobenzene	0.3	<10	<u> </u>	16.56		
Ethylbenzene	0.2	<10	<u> </u>	7.18	ļ	
Toluene	0.2	<10	<u> </u>	5.47		
<u> </u>			<u> </u>		 	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. <u>56528</u>	Lab Sample No	3 - 86 - 1268
Client U.S. AIR FORCE	Field Sample No.	11-3, Su1-2
Project PJKS (DENVER)	Date Collected	
Client No.	Date Received	3/27
Laboratory Supervisor Approval:	Date Analyzed	3/31/86
Johnny R. Odamson Sample Matrix:	QC Report No.	56528-31
/x / Water (ug/L)	Dilution Factor _	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/_/ Other		

Compound	\ c	Concentration			Retention Time		
_	Det Lim	Column 1	Column 2	Column 1	Column 2		
Benzene	0.2	40.7		2.26			
Chlorobenzene	0.2	<10		16.46			
1,2-Dichlorobenzene	0.4	<10		20.44			
1,3-Dichlorobenzene	0.4	<10		17.26			
1,4-Dichlorobenzene	0.3	<10		16.56			
Ethylbenzene	0.2	<10		7.18			
Toluene	0.2	<10	<u> </u>	5.47			
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

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ES Job No. <u>56528</u>	Lab Sample No.	3-86-1267
Client U.S. AIR FORCE	Field Sample No.	11-4, SW-2
Project PJKS (DENVER)		3/26
Client No.	Date Received	3)27
Laboratory Supervisor Approval:	Date Analyzed	3/27/86
Johnne Padamson Sample Matrix:	QC Report No	56528-31
/X / Water (ug/L)	Dilution Factor _	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/ / Other		

Compound	c	Concentration			Retention Time		
	Det Lim	Column 1	Column 2	Column 1	Column 2		
Benzen e	0.2	40.7	<u> </u>	2.26			
Chlorobenzene	0.2	<10	<u> </u>	16.46			
1,2-Dichlorobenzene	0.4	<10	<u> </u>	20.44			
1,3-Dichlorobenzene	0.4	<10		17.26			
1,4-Dichlorobenzene	0.3	<10		16.56			
Ethylbenzene	0.2	<10	<u> </u>	7.18			
Toluene	0.2	<10	<u> </u>	5.47			
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No.	3-86-1266
Client U.S. AIR FORCE	Field Sample No.	11-5, SW-4
Project PJKS (DENVER)	Date Collected	3/26
Client No.	Date Received	3/27
Laboratory Supervisor Approval:	Date Analyzed	3/31/86
Johnne R. adamoin Sample Matrix:	QC Report No.	56528-31
/X / Water (ug/L)	Dilution Factor _	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/ / Other		

Compound		Concentration			Retention Time		
	Det Lim	Column 1	Column 2	Column 1	Column 2		
Benzene	0.2	<0.7		2.26			
Chlorobenzene	0.2	<10		16.46			
1,2-Dichlorobenzene	0.4	<10		20.44			
1,3-Dichlorobenzene	0.4	<10 ·		.17.26			
1,4-Dichlorobenzene	0.3	<10	<u> </u>	16.56	-		
Ethylbenzene	0.2	<10	<u> </u>	7.18			
Toluene	0.2	<10		5.47			
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. <u>56528</u>	Lab Sample No.	3-86-1265
Client U.S. AIR FORCE	Field Sample No.	11-5, SW-3
Project PJKS (DENVER)	Date Collected	
Client No.	Date Received	3/27
Laboratory Supervisor Approval:	Date Analyzed	3 31 86
Johnny R. Odamson Sample Matrix:	QC Report No.	56528-31
/X / Water (ug/L)	Dilution Factor _	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/ / Other		

Compound	c	Concentration			Retention Time		
	Det Lim	Column 1	Column 2	Column 1	Column 2		
Benzen e	0.2	40.7		2.26			
Chlorobenzen e	0.2	<10	<u> </u>	16.46			
1,2-Dichlorobenzene	0.4	<10	<u> </u>	20.44			
1,3-Dichlorobenzene	0.4	<10		.17.26	1		
1,4-Dichlorobenzene	0.3	<10	<u> </u>	16.56			
Ethylbenzene	0.2	<10		7.18			
Toluene	0.2	<10		5.47			
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. <u>56528</u>	Lab Sample No	3-86-1264
Client U.S. AIR FORCE	Field Sample No.	11-6 SW-2
Project PJKS (DENVER)	Date Collected	,
Client No.	Date Received	3 27
Laboratory Supervisor Approval:	Date Analyzed	3/31/86
Johnny R. adamon Sample Matrix:	QC Report No.	56528-31
/X / Water (ug/L)	Dilution Factor _	<u> </u>
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/_/ Other		

Compound	c	Concentration			on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	40.7		2.26		
Chlorobenzene	0.2	<10	<u> </u>	16.46	<u> </u>	
1,2-Dichlorobenzene	0.4	<10		20.44	<u> </u>	
1,3-Dichlorobenzene	0.4	<10		.17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10		7.18		
Toluene	0.2	<10	<u> </u>	5.47	ļ	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. <u>56528</u>	Lab Sample No. 3	-86-1263
Client U.S. AIR FORCE	Field Sample No.	11-7, SW-2
Project PJKS (DENVER)	Date Collected	
Client No.	Date Received	3/27
Laboratory Supervisor Approval:	Date Analyzed	3/31 > 4/1/86
Johnny R. adamson Sample Matrix:	QC Report No.	56528-31
/X / Water (ug/L)	Dilution Factor	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/ / Other		

Compound)c	oncentrat	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	0.2	40.7		2.26		
Chlorobenzene	0.2	<10	<u> </u>	16.46		
1,2-Dichlorobenzene	0.4	<10	<u> </u>	20.44		
1,3-Dichlorobenzene	0.4	<10		17.26		
1,4-Dichlorobenzene	0.3	<10		16.56		
Ethylbenzene	0.2	<10	(7.18	<u> </u>	
Toluene	0.2	<10	<u> </u>	5.47	ļ	
 			<u> </u>		 	<u> </u>
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

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ES Job No. 56528	Lab Sample No.	3-86-1270
Client U.S. AIR FORCE	Field Sample No.	11-7, SW-3
Project PJKS (DENVER)	Date Collected	3/26
Client No.	Date Received	3/27
Laboratory Supervisor Approval:	Date Analyzed	3/27 = 3/28/86
Johnny R. adamson Sample Matrix:	QC Report No.	56528-3
/X_/ Water (ug/L)	Dilution Factor _	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/ / Other		<u>;</u>

Compound		Concentration			Retention Time		
•	Det Lim	Column 1	Column 2	Column 1	Column 2		
Benzene	0.2	<0.7		2.26			
Chlorobenzene	0.2	<10		16.46	•		
1,2-Dichlorobenzene	0.4	<10	<u> </u>	20.44	<u> </u>		
1,3-Dichlorobenzene	0.4	<10	<u> </u>	.17.26	<u> </u>		
1,4-Dichlorobenzene	0.3	<10	<u> </u>	16.56			
Ethylbenzene	0.2	<10		7.18			
Toluene	0.2	<10	<u> </u>	5.47	<u> </u>		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No	3-86-1262
Client U.S. AIR FORCE	Field Sample No.	11-8, SW-a
Project PJKS (DENVER)	Date Collected	3/26
Client No.	Date Received	3/27
Laboratory Supervisor Approval:	Date Analyzed	3/31 2 4/1/86
Johnny P. adamson Sample Matrix:	QC Report No.	56528-31
/X / Water (ug/L)	Dilution Factor _	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/_/ Other		

2 <0. 2 <10 4 <10 4 <10 3 <10 2 <10	7	2.20 16.4 20.4 17.2 16.5	6 4	lumn 2	
2 <10 4 <10 4 <10 3 <10 2 <10		16.4 20.4 17.2 16.5	6 4		
4 <10 4 <10 3 <10 2 <10		20.4° .17.2 16.5	4		
4 <10 3 <10 2 <10	o o	.17.2	6		
3 <10	<u> </u>	16.5	6		
2 <10	i	i			
	<u> </u>	7.1	8		i
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2 <10	<u> </u>	5.4	7		<u> </u>
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Purgeable Aromatics

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ES Job No. <u>56528</u>	Lab Sample No	3-86-1261	
Client U.S. AIR FORCE	Field Sample No.	11-9, SW-2	
Project PJKS (DENVER)	Date Collected	3/26	, X
Client No.	Date Received	3/27	
Laboratory Supervisor Approval:	Date Analyzed	3/31 × 4/1/86	3
Johnny R. adamon Sample Matrix:	QC Report No	56528-31	50
/X / Water (ug/L)	Dilution Factor _		
// Soil (ug/g) (ug/Kg)	*Moisture		_
/ / Other			

Compound	C	Concentration			Retention Time		
-	Det Lim	Column 1	Column 2	Column 1	Column 2		
Benzene	0.2	40.7		2.26]:
Chlorobenzene	0.2	<10		16.46] :
1,2-Dichlorobenzene	0.4	<10		20.44			١
1,3-Dichlorobenzene	0.4	<10	1	.17.26			Ĭ
1,4-Dichlorobenzene	0.3	<10		16.56	<u> </u>].;
Ethylbenzene	0.2	<10	<u>!</u>	7.18		<u></u>	:
Toluene	0.2	<10	<u> </u>	5.47			┦╸
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. 3-86-1260
Client U.S. AIR FORCE	Field Sample No. 11-10 SW-2
Project PJKS (DENVER)	Date Collected 3/26
Client No.	Date Received 3/27
Laboratory Supervisor Approval:	Date Analyzed 3/31 2 4/1/86
Johnny R. Odamon Sample Matrix:	QC Report No. <u>56528-3 </u>
/X / Water (ug/L)	Dilution Factor
/_/ Soil (ug/g) (ug/Kg)	*Moisture
/ / Other	

Compound	c	Concentration			Retention Time		
	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes	
Benzene	0.2	40.7		2.26			
Chlorobenzene	0.2	<10		16.46			
1,2-Dichlorobenzene	0.4	<10		20.44			
1,3-Dichlorobenzene	0.4	<10		17.26			
1,4-Dichlorobenzene	0.3	<10		16.56			
Ethylbenzene	0.2	<10		7.18			
Toluene	0.2	<10		5.47			
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No	12-85-1162
Client U.S. Air Force	Field Sample No.	11-1,50-2
Project PJKS (Denver	Date Collected	12-13-35
Client No.	Date Received	12-19-85
Laboratory Supervisor Approval:	Date Analyzed	1/1/86
Johnny R adamser Sample Matrix:	QC Report No.	PJK5-04
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	C	oncentrat:	ion	Retention Time		Notes
-	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
<pre>bis(2~chloroethoxy) methane</pre>	.12	<12		44.2	1	
bis(2-chloroisopropyl) ether	₋ 25	125		42.2	_	
Bromobenzene	. 8	<10		29.18		
Bromodichloromethane	. 2	<10		15.69		
Bromoform	4	<10		21.24		· ·
Bromomethane	. 24	L24		2.85	<u> </u>	
Carbon tetrachloride	. 3	<10		15.47	1	
Chloroacetaldehyde	10	<10		11.6		
Chloral	-10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	.10	<10		4.51		
Chloroform	1.	<10		13.01		
1-Chlorohexane	. 2	<10		26.58	1)
2-Chloroethyl vinyl ether	3	<10		19.49	<u> </u>	
Chloromethane	. 2	<10		1.95	<u> </u>	
Chloromethyl methyl ether	20	لا 20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	. 2	<10		18.68		. <u> </u>

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound		ncentrati		Retentio		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	.3	<10		60.10	<u>!</u>	
1,3-Dichlorobenzene	6	<10		42.90	: :	
1,4-Dichlorobenzene	. 5	<10		37.28		<u>:</u>
Dichlorodifluoromethane	_30	430		3.54	<u> </u>	<u> </u>
1,1-Dichloroethane	11	<10		11.67	i	<u> </u>
1,2-Dichloroethane	11	<10		13.55	1	<u>i</u>
1,1-Dichloroethylene	3	<10		10.31	<u> </u>	1
trans-1,2-Dichloroethylene	2	<10		12.35	:	
Dichloromethane	5	<10		7.50	i	!
1,2-Dichloropropane	. 1	<10		17.19	!	<u> </u>
				17.24		
1,3-Dichloropropylene	.6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		1
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	_1	<10		18.68	<u> </u>	
Trichloroethylene	. 2	<10		17.91	İ	
Trichlorofluoromethane	1	<10		8.58	! 	<u> </u>
Trichloropropane	i 2	<10		23.01	!	
Vinyl chloride	-4	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No	Lab Sample No. 12-85-1163	
Client U.S. Air Force	Field Sample No. 11-2, 50-2	_
Project PJKS (Denver	Date Collected 12-18-85	_
Client No.	Date Received	
Laboratory Supervisor Approval:	Date Analyzed 1/1/56	
Johnny R. Colombia Sample Matrix?	QC Report No. PJKS -C4	_
/ / Water (ug/L)	Dilution Factor	
<u>/X /</u> Soil (ug/g)	*Moisture	_8
/_/ Other		

Compound	L	oncentrat		Retention Time		
	Det Lim	Column 1	Column 2	Column 1	Column 2	Ì
Benzyl chloride	4	<10		40.9		,
bis(2-chloroethoxy) methane	12د	CIA		44.2		
bis(2-chloroisopropyl) ether	25	425		42.2		
Bromobenzene	.8	<10		29.18		!
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		: :
Bromomethane	24 .	LZ4		2.85	1	!
Carbon tetrachloride	3	<10		15.47		· ·
Chloroacetaldehyde	10	<10		11.6	!	
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51	İ	
Chloroform	1	<10		13.01		
1-Chlorohexane	2	<10		26.58	•	
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	,2	<10		1.95		
Chloromethyl methyl ether	20	420		9.37		
Chlorotoluene	.4	<10		37.9		
Dibromochloromethane	. 2	<10		18.68	<u> </u>	

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound				Retentio		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10	!	ļ
1,3-Dichlorobenzene	6	<10		42.90	<u>!</u>	
1,4-Dichlorobenzene	. 5	<10		37.28	:	
Dichlorodifluoromethane	. 30	₹30	ļ	3.54	1	
1,1-Dichloroethane	1	<10		11.67	<u> </u>	
1,2-Dichloroethane	1	<10		13.55	! !	<u> </u>
1,1-Dichloroethylene	. 3	<10		10.31		
trans-1,2-Dichloroethylene	. 2	<10		12.35	i	<u> </u>
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		
				17.24		
1,3-Dichloropropylene	5	<10		18.68		
1,1,2,2-Tetrachloroethane	,	<10	•	23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		
Trichloroethylene	2	<10		17.91	ļ	
Trichlorofluoromethane	. 1	<10		8.58	i	<u> </u>
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	4	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

SECTION PARTICULAR SECTION SECTIONS

CONTROL AND DESCRIPTION OF THE PROPERTY OF THE

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No	12-85-1164
Client U.S. Air Force	Field Sample No.	11-3,50-1
ProjectPJKS (Denver	Date Collected	12-18-35
Client No.	Date Received	12-19-55
Laboratory Supervisor Approval:	Date Analyzed	11.186
Johnny R. adamson Sample Matrix:	QC Report No	PJKS -C+
/ / Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound	Co	oncentrat:	ion	Retenti	on Time	Notes
_	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		•
bis(2-chloroethoxy) methane	12	くは	•	44.2		
bis(2-chloroisopropyl) ether	25	L 25		42.2		
Bromobenzene	3	<10		29.18		<u> </u>
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	<24		2.85	1	
Carbon tetrachloride	3	<10		15.47		!
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	ر 10	<10		4.51		
Chloroform	1 .	<10		13.01		·
1-Chlorohexane	۔2	<10		26.58	<u> </u>	ı
2-Chloroethyl vinyl ether	3	<10		19.49	<u> </u>	
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	. 20	く20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	. 2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Concentration			Retentio	n Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09		
1,2-Dichlorobenzene	. 3	<10		60.10		
1,3-Dichlorobenzene	. 5	<10		42.90		
1,4-Dichlorobenzene	.5	<10		37.28		<u> </u>
Dichlorodifluoromethane	. 30	430		3.54		-
1,1-Dichloroethane	1	<10		11.67		
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10		10.31		
trans-1,2-Dichloroethylene	2	<10		12.35		_
Dichloromethane	5	<10		7.50		
1,2-Dichloropropane	1	<10		17.19		<u> </u>
				17.24		
1,3-Dichloropropylene	5	<10		18.68	<u> </u>	
1,1,2,2-Tetrachloroethane	7	<10	•	23.47		<u></u>
1,1,1,2-Tetrachloroethane	7	<10		21.04		<u> </u>
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	_1	<10		14.76		
1,1,2-Trichloroethane	11	<10		18.68		
Trichloroethylene	. 2	<10	_	17.91		
Trichlorofluoromethane	. 1	<10		8.58		<u> </u>
Trichloropropane	. 2	<10		23.01		1
Vinyl chloride	4	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No56528	Lab Sample No	12-35-1165
Client U.S. Air Force	Field Sample No.	11-4, SD-1
Project PJKS (Denver	Date Collected	12-18-85
Client No.	Date Received	12-19-85
Laboratory Supervisor Approval:	Date Analyzed	11,186
John Radamon	QC Report No.	177KS -C4
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	*
/ / Other		

Compound	Co	oncentrat:	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	.12	くいと	-	44.2		
bis(2-chloroisopropyl) ether	25	حد		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	. 24	124		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	. 10	<10		11.6		
Chloral	10	<10		18.7	<u> </u>	
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01	<u>. </u>	
1-Chlorohexane	. 2	<10		26.58	<u> </u>)
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	لارن		9.37		
Chlorotoluene	. 4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Concentration			Retentio	on Time	Notes		
	Det Li	im C	Column 1	Column	2	Column 1	Column 2	
Dibromomethane	1	\dashv	<10			13.09		
1,2-Dichlorobenzene	3		<10		_	60.10		
1,3-Dichlorobenzene	.6		<10	<u>!</u>	_	42.90		
1,4-Dichlorobenzene	5	_	<10			37.28		
Dichlorodifluoromethane	30		<30			3.54		
1,1-Dichloroethane	1	寸	<10			11.67	1	
1,2-Dichloroethane	-	\neg	<10			13.55		
1,1-Dichloroethylene	3	_	<10			10.31		
trans-1,2-Dichloroethylene			<10			12.35	<u>:</u>	<u> </u>
Dichloromethane	5		<10		_	7.50	1	<u> </u>
1,2-Dichloropropane	1	十	<10			17.19	<u> </u>	<u> </u>
172 Stontoropropand		\top	<u> </u>			17.24		i
1,3-Dichloropropylene	6		<10 -			18.68		
1,1,2,2-Tetrachloroethane	17		<10			23.47		
1,1,1,2-Tetrachloroethane	. 7		<10			21.04		
Tetrachloroethylene	1		<10			23.47		
1,1,1-Trichloroethane	1		<10			14.76		
1,1,2-Trichloroethane	1		<10			18.68	•	
Trichloroethylene	2		<10			17.91		
Trichlorofluoromethane	1		<10			8.58		
Trichloropropane	. 2		<10			23.01		
Vinyl chloride	4		<10			3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No	12-55-1166
Client U.S. Air Force	Field Sample No.	11-5, SD-1
Project PJKS (Denver		12-19-85
Client No.	Date Received	12-19-85
Laboratory Supervisor Approval:	Date Analyzed	1/1/86
John R Codamoin Sample Matrix:	OC Report No.	PJKS-O4
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/_/ Other		

Compound	Concentration Retention Time					Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
<pre>bis(2-chloroethoxy) methane</pre>	. 12	< 12		44.2		
<pre>bis(2-chloroisopropyl) ether</pre>	25	425		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	. 24	〈 24		2.85		
Carbon tetrachloride	3	<10		15.47	<u> </u>	
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01	!	
Chloroethane	. 10	<10		4.51	<u> </u>	
Chloroform	11	<10		13.01		
1-Chlorohexane	. 2	<10		26.58	}	ı
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	. 2	<10		1.95	,	
Chloromethyl methyl ether	20	راه	•	9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound		ncentrati		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	· 1	<10		13.09		
1,2-Dichlorobenzene	. 3	<10		60.10	<u> </u>	
1,3-Dichlorobenzene	.6	<10		42.90	<u> </u>	
1,4-Dichlorobenzene	5	<10		37.28	<u>.</u>	
Dichlorodifluoromethane	30	<u> </u>		3.54	<u> </u>	
1,1-Dichloroethane	. 1	<10	•	11.67		<u> </u>
1,2-Dichloroethane	1	<10		13.55		
1,1-Dichloroethylene	3	<10	 	10.31	<u> </u>	
trans-1,2-Dichloroethylene	. 2	<10		12.35		
Dichloromethane		<10		7.50		
1,2-Dichloropropane	. 1	<10	_	17.19		Ĺ
		,		17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47		<u> </u>
1,1,1,2-Tetrachloroethane	.7	<10		21.04		
Tetrachloroethylene	. 1	<10		23.47		
1,1,1-Trichloroethane	1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68		<u> </u>
Trichloroethylené	. 2	<10		17.91		
Trichlorofluoromethane	1	<10		8.58		
Trichloropropane	2	<10		23.01		
Vinyl chloride	4	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No56528	Lab Sample No	12-85-1161
Client U.S. Air Force	Field Sample No.	11-5,50-2
Project PJKS (Denver	Date Collected	12-18-85
Client No.	Date Received	12-19-85
Laboratory Supervisor Approval:	Date Analyzed	1/1/36
Johnson R. adamsimi Sample Matrix:	QC Report No	PJKS -C4
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/_/ Other		

Compound	C	oncentrat:	ion	Retenti	tention Time	
-	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
<pre>bis(2-chloroethoxy) methane</pre>	12	<12	-	44.2		
bis(2-chloroisopropyl) ether	25	225		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	_ 2	<10		15.69		
Bromoform	4	<10		21.24		
Bromomethane	24	L24		2.85		_
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	. 10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane .	10	<10		4.51		
Chloroform	. 1	<10		13.01		
1-Chlorohexane	2	<10		26.58	<u> </u>	
2-Chloroethyl vinyl ether	3	<10		19.49	<u> </u>	
Chloromethane .	. 2	<10		1.95		
Chloromethyl methyl ether	20	220		9.37		
Chlorotoluene	.4	<10		37.9		•
Dibromochloromethane	.2	<10		18.68	<u> </u>	

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Compound		Concentration			Retention Time		
	Det Lim	Column 1	Column 2	Column 1	Column 2		
Dibromomethane	1	<10		13.09	!		
1,2-Dichlorobenzene	3	<10		60.10	!		
1,3-Dichlorobenzene	5	<10		42.90	<u>:</u>		
1,4-Dichlorobenzene	5	<10		37.28	•		
Dichlorodifluoromethane	. 30	430		3.54	!	<u> </u>	
1,1-Dichloroethane	1	<10		11.67	1	<u> </u>	
1,2-Dichloroethane	1	<10		13.55	: !	<u> </u>	
1,1-Dichloroethylene	3	<10		10.31			
trans-1,2-Dichloroethylene	2	<10		12.35	<u>.</u>		
Dichloromethane	5	<10		7.50		!	
1,2-Dichloropropane	. 1	<10		17.19	!		
				17.24			
1,3-Dichloropropylene	. 5	<10		18.68			
1,1,2,2-Tetrachloroethane	7	<10		23.47	1		
1,1,1,2-Tetrachloroethane	7	<10		21.04			
Tetrachloroethylene	1	<10	[23.47			
1,1,1-Trichloroethane	: 1	<10		14.76	!	<u> </u>	
1,1,2-Trichloroethane	1	<10		18.68	İ		
Trichloroethylene	. 2	<10		17.91	į		
Trichlorofluoromethane	1	<10		8.58	i		
Trichloropropane	2	<10		23.01	!		
Vinyl chloride	. 4	<10		3.54	i		
					:	1	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No56528	Lab Sample No. 12-35-1165	
Client U.S. Air Force	Field Sample No. 11-6, 50-1	
Project PJKS (Denver	Date Collected /2-/8-85	
Client No.	Date Received /2-19-85	
Laboratory Supervisor Approval:	Date Analyzed 1/./56	
Johnny R. Codamoin Sample Matrix:	QC Report No. PJKS-C4	
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/_ / Other		

. Compound	C	oncentrat:	ion	Retenti	Notes	
_	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	.4	<10		40.9		
bis(2-chloroethoxy) methane	.12	くいろ	-	44.2		
bis(2-chloroisopropyl) ether	.25	US		42.2		
Bromobenzene	·8	<10		29.18		
Bromodichloromethane	. 2	<10		15.69		
Bromoform	1	<10		21.24		
Bromomethane	24	424		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	. 10	<10		18.7		· ·
Chlorobenzene	. 5	<10		26.01		
Chloroethane	. 10	<10		4.51	<u> </u>	, , , , , , , , , , , , , , , , , , , ,
Chloroform	. 1.	<10		13.01		
1-Chlorohexane	2	<10		26.58		•
2-Chloroethyl vinyl ether	3	<10		19.49		·
Chloromethane	. 2	<10		1.95		•
Chloromethyl methyl ether	20	720		9.37		
Chlorotoluene	. 4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Co	oncentrati	on	Retention Time		
	Det Lim	Column 1	Column 2	Column 1	Column 2	ì
Dibromomethane	.1	<10		13.09	!	
1,2-Dichlorobenzene	3	<10		60.10]
1,3-Dichlorobenzene	.6	<10		42.90	:	
1,4-Dichlorobenzene	-5	<10		37.28	:	!
Dichlorodifluoromethane	. 30	<30		3.54	<u> </u>	!
1,1-Dichloroethane	1	<10		11.67	<u>; </u>	!
1,2-Dichloroethane	1	<10		13.55	•	<u> </u>
1,1-Dichloroethylene	3	<10	ļ	10.31	•	!
trans-1,2-Dichloroethylene	2	<10		12.35	:	i
Dichloromethane	. 5	<10		7.50	•	!
1,2-Dichloropropane	1	<10		17.19		
				17.24		i
1,3-Dichloropropylene	5	<10		18.68		<u> </u>
1,1,2,2-Tetrachloroethane	7	<10	•	23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	1	<10		23.47		
1,1,1-Trichloroethane	. 1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68	† :	
Trichloroethylene	2	<10		17.91	•	
Trichlorofluoromethane	1	<10		8.58	İ	
Trichloropropane	2	<10		23.01	1	
Vinyl chloride	4	<10		3.54	1	
	!			† †		
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	<u>. </u>			!		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. <u>56528</u>	Lab Sample No	12-85-1164
Client U.S. Air Force	Field Sample No.	11-7. 50-1
Project PJKS (Denver	Date Collected	12-19-35
Client No.	Date Received	12-19-85
Laboratory Supervisor Approval:	Date Analyzed	11.186
John R. Codomson Sample Matrix:	QC Report No	PJK5-04
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	•
/ / Other	•	

Compound	c	oncentrat:	ion	Retention Time N		Notes
-	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	. 4	<10		40.9		
bis(2-chloroethoxy) methane	-12	12	-	44.2		
bis(2-chloroisopropyl) ether	. 25	125		42.2		
Bromobenzene	.8	<10		29.18		
Bromodichloromethane	.2	<10		15.69		
Bromoform	. 4	<10		21.24		
Bromomethane	24	124		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	_10	<10		11.6		
Chloral	_10	<10		18.7		
Chlorobenzene	5	. <10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	.1,	<10.		13.01		
1-Chlorohexane	2	<10		26.58	•)
2-Chloroethyl vinyl ether	. 3	<10		19.49		
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	<20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound		oncentrati		Retentio		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	İ
Dibromomethane	1	<10		13.09	!	
1,2-Dichlorobenzene	: 3	<10	<u> </u>	60.10	<u> </u>	
1,3-Dichlorobenzene	6	<10		42.90	!	
1,4-Dichlorobenzene	.5	<10_		37.28	1	
Dichlorodifluoromethane	30	430	<u> </u>	3.54	!	
1,1-Dichloroethane	1	<10		11.67	<u> </u>	<u>i</u>
1,2-Dichloroethane	_1_	<10		13.55	<u>:</u>	
1,1-Dichloroethylene	3	<10		10.31	<u> </u>	!
trans-1,2-Dichloroethylene	۔2	<10		12.35	:	
Dichloromethane	5	·<10		7.50		!
1,2-Dichloropropane	-1	<10		17.19	!	
		•		17.24		
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	.7	<10		23.47		
1,1,1,2-Tetrachloroethane	7	<10		21.04		
Tetrachloroethylene	. 1	<10		23.47		<u> </u>
1,1,1-Trichloroethane	. 1	<10		14.76		
1,1,2-Trichloroethane	_1	<10		18.68	Í	
Trichloroethylene	. 5	<10		17.91	i	
Trichlorofluoromethane	1	<10		8.58	i -	
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	_1	<10		3.54	i	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No56528	Lab Sample No	1-86-1029
Client U.S. Air Force	Field Sample No.	11-8,50-2
Project PJKS (Denver	Date Collected	1-7-36
Client No.	Date Received	1-3-86
Laboratory Supervisor Approval:	Date Analyzed	1/8/86
Johnny Radamor- Sample Matrix:	QC Report No	PTKS-CF
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/_/ Other		

Compound ·	C	oncentrat	ion	Retention Time		Notes
-	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
<pre>bis(2-chloroethoxy) methane</pre>	12	<12		44.2		
bis(2-chloroisopropyl) ether	25	125		42.2		
Bromobenzene	а	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	4	<10		21.24	·	
Bromomethane	. 24	424		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6		
Chloral	10	<10		18.7		
Chlorobenzene	5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1.	<10		13.01		ļ
1-Chlorohexane	2	<10		26.58	<u> </u>	<u> </u>
2-Chloroethyl vinyl ether	3	<10		19.49		! !
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	- < 20		9.37		
Chlorotoluene	4	<10		37.9		
Dibromochloromethane	2	<10		18.68		

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (second of two pages)

Compound	Co	oncentrati	Lon	Retentio	on Time	Notes
.	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	1	<10		13.09	<u>1 · </u>	<u>!</u>
			! 		<u>:</u>	-
1,2-Dichlorobenzene	3	<10		60.10	!	
1,3-Dichlorobenzene	-6	<10	<u> </u>	42.90	<u>!</u>	<u>!</u>
1,4-Dichlorobenzene	5	<10	<u> </u>	37.28	<u> </u>	1
Dichlorodifluoromethane	30	\ \3 0		3.54	<u>i</u>	!
1,1-Dichloroethane	1	<10		11.67	!	<u> </u>
1,2-Dichloroethane	. 1	<10		13.55		<u> </u>
1,1-Dichloroethylene	3	<10		10.31		<u> </u>
trans-1,2-Dichloroethylene	. 2	<10		12.35	•	
Dichloromethane	5	<10		7.50	i	!
1,2-Dichloropropane	1	<10		17.19		
				17.24		į
1,3-Dichloropropylene	6	<10		18.68		
1,1,2,2-Tetrachloroethane	.7	<10	•	23.47		<u> </u>
1,1,1,2-Tetrachloroethane	7	<10		21.04	<u> </u>	
Tetrachloroethylene	1	<10		23.47	1	
1,1,1-Trichloroethane	. 1	<10		14.76		
1,1,2-Trichloroethane	1	<10		18.68	i	
Trichloroethylene	2	<10		17.91	•	
Trichlorofluoromethane ·	. 1	<10		8.58	i 	<u> </u>
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	4	<10_		3.54	<u> </u>	
	<u> </u>			<u> </u>		
•	<u> </u>					
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^{*} If * moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No.	12-85-1171
Client U.S. Air Force	Field Sample No.	11-9,50-1
Project PJKS (Denver	Date Collected	12-18-85
Client No.	Date Received	12-19-85
Laboratory Supervisor Approval:	Date Analyzed	1/1/96
Johnne R adamoin Sample Matrix:	QC Report No	PJKS-C+
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	
/ / Other		

- Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9		
bis(2-chloroethoxy) methane	.12	<12	•	44.2		
<pre>bis(2-chloroisopropyl) ether</pre>	25	415		42.2		
Bromobenzene	8	<10		29.18		
Bromodichloromethane	2	<10		15.69		
Bromoform	.4	<10	! 	21.24		
Bromomethane	24	424		2.85		
Carbon tetrachloride	3	<10		15.47		
Chloroacetaldehyde	10	<10		11.6	·	'
Chloral	10	<10		18.7		
Chlorobenzene	.5	<10		26.01		
Chloroethane	10	<10		4.51		
Chloroform	1	<10		13.01		-
1-Chlorohexane	2	<10		26.58		
2-Chloroethyl vinyl ether	3	<10		19.49		
Chloromethane	2	<10		1.95	<u> </u>	
Chloromethyl methyl ether	20	420		9.37	;	
Chlorotoluene	. 4	<10		37.9	<u> </u>	
Dibromochloromethane	. 2	<10		18.68	1 1	

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ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010

12-85-1171

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Compound	Co	oncentrati	on	Retentio	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Dibromomethane	.1_	<10		13.09		
1,2-Dichlorobenzene	3	<10		60.10	i	<u> </u>
1,3-Dichlorobenzene	6	<10		42.90	<u> </u>	
1,4-Dichlorobenzene	5	<10		37.28		
Dichlorodifluoromethane	. 30	<30		3.54	1	
1,1-Dichloroethane	11	<10		11.67	<u> </u>	<u> </u>
1,2-Dichloroethane	11	<10		13.55	i 	<u> </u>
1,1-Dichloroethylene	. 3	<10		10.31	<u> </u>	
trans-1,2-Dichloroethylene	2	<10		12.35	<u>.</u>	
Dichloromethane	. 5	<10		7.50	!	
1,2-Dichloropropane	. 1	<10		17.19	1	
				17.24		
1,3-Dichloropropylene	,6	<10		18.68		
1,1,2,2-Tetrachloroethane	7	<10		23.47	<u> </u>	
1,1,1,2-Tetrachloroethane	. 7	<10		21.04		
Tetrachloroethylene	. 1	<10		23.47		<u> </u>
1,1,1-Trichloroethane	. 1	<10		14.76		
1,1,2-Trichloroethane	. 1	<10		18.68	•	
Trichloroethylene	2	<10		17.91	!	
Trichlorofluoromethane	. 1	<10		8.58	İ	
Trichloropropane	2	<10		23.01	!	
Vinyl chloride	4	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Halogenated Volatile Organics SW Method 8010 (first of two pages)

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ES Job No. <u>56528</u>	Lab Sample No	12-55-1172
Client U.S. Air Force	Field Sample No.	11-10,50-1
Project PJKS (Denver	Date Collected	12-18-85
Client No.	Date Received	12-19-55
Laboratory Supervisor Approval:	Date Analyzed	1/;186
Johnny R adamsur Sample Matrix	QC Report No	PJKS-05
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	<u> </u>
/ / Other		

Compound	Concentration			Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzyl chloride	4	<10		40.9	j	
bis(2-chloroethoxy) methane	12	<12	•	44.2		
bis(2-chloroisopropyl) ether	. 25	(25		42.2		
Bromobenzene	.8	<10		29.18		
Bromodichloromethane	. 2	<10		15.69		
Bromoform	. 4	<10		21.24		
Bromomethane	. 24	424		2.85		
Carbon tetrachloride	. 3	<10		15.47	!	
Chloroacetaldehyde -	. 10	<10		11.6		
Chloral	. 10	<10		18.7		
Chlorobenzene	5	<10		26.01	<u> </u>	
Chloroethane	10	<10		4.51	!	
Chloroform	1.	<10		13.01		
1-Chlorohexane	2	<10		26.58	•	
2-Chloroethyl vinyl ether	3	<10		19.49		·
Chloromethane	2	<10		1.95		
Chloromethyl methyl ether	20	くんひ		9.37		<u> </u>
Chlorotoluene	4	<10	_	37.9		
Dibromochloromethane	2	<10		18.68		

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Compound	Co	oncentrati	on	Retentio	Retention Time		
·	Det Lim	Column 1	Column 2	Column 1	Column 2		
Dibromomethane	11	<10		13.09			
1,2-Dichlorobenzene	. 3	<10		60.10			
1,3-Dichlorobenzene	5	<10		42.90	<u> </u>		
1,4-Dichlorobenzene	5	<10		37.28	<u> </u>		
Dichlorodifluoromethane	30	430		3.54	1	1	
1,1-Dichloroethane	· 1	<10		11.67		<u> </u>	
1,2-Dichloroethane	. 1	<10		13.55	<u> </u>		
1,1-Dichloroethylene	3	<10		10.31			
trans-1,2-Dichloroethylene	2	<10		12.35	İ		
Dichloromethane	5	<10		7.50			
1,2-Dichloropropane	1	<10		17.19			
				17.24			
1,3-Dichloropropylene	6	<10		18.68			
1,1,2,2-Tetrachloroethane	7	<10	-	23.47	<u> </u>		
1,1,1,2-Tetrachloroethane	7	<10		21.04			
Tetrachloroethylene	11	<10		23.47			
1,1,1-Trichloroethane	1	<10		14.76	<u> </u>		
1,1,2-Trichloroethane	1	<10		18.68	<u> </u>		
Trichloroethylene	2	<10		17.91			
Trichlorofluoromethane	<i>,</i> 1	<10		8.58	İ		
Trichloropropane	. 2	<10		23.01			
Vinyl chloride	4	<10		3.54			
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No56528	Lab Sample No	12-85-1162
Client U.S. Air Force	Field Sample No.	11-1, 83-2, ES
Project PJKS (Denver)	Date Collected	12/18/65
Client No.	Date Received	12/19/85
Laboratory Supervisor Approval:	Date Analyzed	1/1/86
Johnn R. adamson Sample Matrix	OC Report No	56528-4
/_/ Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	•
/ / Other	,	

Compound	C	oncentrati	ion	Retenti	on_ Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	.4	<10		2.26		
Chlorobenzene	.4	<10		16.46		
1,2-Dichlorobenzene	. 8	<10		27.93		
1,3-Dichlorobenzene	. 18	<10		26.40		
1,4-Dichlorobenzene	:6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47	<u> </u>	
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. 12-85-116	3
Client U.S. Air Force	Field Sample No. 11-2, SD-2	ES
Project PJKS (Denver)	Date Collected ia 18/85	
Client No.	Date Received 12/19/85	
Laboratory Supervisor Approval:	Date Analyzed 1/i/86	
Johnny R. adamon Sample Matrix	OC Report No. 56528-4	
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	*
/ / Other		

Compound	Concentration			Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	. 4	<10		2.26		
Chlorobenzene	. 4	<10		16.46		
1,2-Dichlorobenzene	8_	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10	ļ 	22.51		
Ethyl benzene	٠ 4	<10	<u> </u>	7.18		
Toluene	4	<10		5.47		·
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No.	12-85-1164
Client U.S. Air Force	Field Sample No.	11-3.5D-1, ES
Project PJKS (Denver)	Date Collected	12/18/85
Client No.	Date Received	12/19/85
Laboratory Supervisor Approval:	Date Analyzed	1/1/86
Johnny R. adams	OC Report No.	54528-4
/_/ Water (ug/L)	Dilution Factor _	
<u>/X</u> / Soil (ug/g)	*Moisture	
/_/ Other		

Compound	C	oncentrat:	ion	Retenti	Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	. 4	<10		16.46		
1,2-Dichlorobenzene	. •8	<10		27.93		
1,3-Dichlorobenzene	,8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51	<u> </u>	
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No	12-85-1165
Client U.S. Air Force	Field Sample No.	11-4 SD-1, ES
Project PJKS (Denver)	Date -Collected	12/18/85
Client No.	Date Received _	12/19/85
Laboratory Supervisor Approval:	Date Analyzed _	1/1/86
Johnny R. adamoin Sample Matrix	OC Report No.	56528-4
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/_/ Other		

Compound	C	oncentrati	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	. :4	<10	·	2.26		
Chlorobenzene	- 4	<10		16.46	<u> </u>	
1,2-Dichlorobenzene	.8	<10		27.93		
1,3-Dichlorobenzene	.8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No56528	Lab Sample No	12-85-1166
Client U.S. Air Force	Field Sample No.	11-5,50-1 ES
Project PJKS (Denver)	Date Collected	12/18/85
Client No.	Date Received _	12/19/85
Laboratory Supervisor Approval:	Date Analyzed _	1/1/86
Johnny R. adamson Sample Matrix	OC Report No	56528-4
/_/ Water (ug/L)	Dilution Factor	
<u>/X /</u> Soil (ug/g)	*Moisture	
/_/ Other	·	·

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	. 4	<10		16.46		
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	. 8	<10		26.40		<u> </u>
1,4-Dichlorobenzene	. 6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	. 4	<10		5.47		
Xylenes (Dimethyl benzene)	'4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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Lab Sample No.	12-85-1167
Field Sample No.	11-5 SD-2 ES
Date Collected	12/18/85
Date Received	12/19/85
Date Analyzed	
OC Report No.	50528-4
Dilution Factor _	
*Moisture	
	Field Sample No. Date Collected Date Received Date Analyzed OC Report No. Dilution Factor

Compound	Concentration			Retention Time		Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	. 4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	.`8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	`6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	. 4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
			<u> </u>	1		<u> </u>

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No	12-85-1168
Client	U.S. Air Force	Field Sample No.	11-6, SD-1, ES
Project	PJKS (Denver)	Date Collected _	12/18/85
Client No.		Date Received _	12/19/85
Laboratory	Supervisor Approval:	Date Analyzed _	1/1/86
Golden Mat	R. adamoin	OC Report No.	56528-4
/ '	Water (ug/L)	Dilution Factor	
<u>/x</u> _/	Soil (ug/g)	*Moisture	*
//	Other .		

Compound	mpound Concentration		ion	Retenti	on Time	e Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	1
Benzene	4	<10		2.26		
Chlorobenzene	1.4	<10		16.46		
1,2-Dichlorobenzene	. 8	<10		27.93		
1,3-Dichlorobenzene	8′	<10		26.40	<u> </u>	
1,4-Dichlorobenzene	·6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Aromatic Volatile Organics SW Method 8020

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ES Job No. 56528	Tah Cample No	17-05-1169
ES JOB NO	•	12-85-1169
Client U.S. Air Force	Field Sample No.	11-7, SD-1, ES
Project PJKS (Denver)	Date Collected _	12/18/85
Client No.	Date Received _	12/19/85
Laboratory Supervisor Approval:	Date Analyzed _	1/1/86
Johnny R. adamson Sample Matrix	OC Report No	56528-4
/_/ Water (ug/L)	Dilution Factor	
<u>/X</u> / Soil (ug/g)	*Moisture	•
/_/ Other		

Compound	Concentration		Retention Time		Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	. ,4	<10		16.46		
1,2-Dichlorobenzene	, 8	<10		27.93		
1,3-Dichlorobenzene	. 8	<10		26.40		
1,4-Dichlorobenzene	6	<10	·	22.51		
Ethyl benzene	4	<10	, ,	7.18	<u> </u>	
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No.	12-85-1170
Client U.S. Air Force	Field Sample No.	11-8,50-1,ES
Project PJKS (Denver)	Date Collected	12/18/85
Client No.	Date Received	12/19/85
Laboratory Supervisor Approval:		1/1/86
Johnny R. adamsın Sample Matrix:	OC Report No.	56528-4
/ / Water (ug/L)	Dilution Factor _	
/X / Soil (ug/g)	*Moisture	•
/_/ Other		

Compound	C	oncentrati	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	. :4	<10		2.26		
Chlorobenzene	. 4	<10		16.46		
1,2-Dichlorobenzene	.8	<10		27.93	<u> </u>	
1,3-Dichlorobenzene	.)8	<10		26.40		
1,4-Dichlorobenzene		<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	4	<10		5.47		
Xylenes (Dimethyl benzene)	. 4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No.	1-86-1029
Client U.S. Air Force	Field Sample No.	11-8, SD-2, ES
Project PJKS (Denver)	Date Collected _	1/2/56
Client No.	Date Received _	1/3/86
Laboratory Supervisor Approval:	Date Analyzed _	1/8/86
Johnny R. Odamon Sample Matrix D	OC Report No	56528-8
/_/ Water (ug/L)	Dilution Factor	
/X / Soil (ug/g)	*Moisture	
/ / Other		

Compound		Concentrat	ion	Retent	ion Time	Notes
	Det Li	m Column 1	Column 2	Column	Column 2	
Benzene	4	<10		2.26		
Chlorobenzene	4	<10		16.46		
1,2-Dichlorobenzene	. 8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	6	<10		22.51		
Ethyl benzene	. 4	<10		7.18		
Toluene	. 4	<10		5.47		
Xylenes (Dimethyl benzene)	4	<10		15.26 16.91 17.77		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. 12-85-1171	
Client U.S. Air Force	Field Sample No. #-9. SD-1, ES	_
Project PJKS (Denver)	Date Collected 12/18/85	
Client No.	Date Received 12/19/85	
Laboratory Supervisor Approval:	Date Analyzed 1/1/86	_
Johnny R. adamoin Sample Matrix	OC Report No. 56538-4	
/_/ Water (ug/L)	Dilution Factor	
/X_/ Soil (ug/g)	*Moisture	
/ _/ Other		

C	oncentrati	ion	Retenti	on Time	Notes
Det Lim	Column 1	Column 2	Column 1	Column 2	
.4	<10		2.26		
. 4	<10		16.46		
8	<10		27.93	<u> </u>	
8	<10		26.40	<u> </u>	
. 6	<10		22.51		
. 4	<10		7.18		
. 4	<10		5.47		
4	<10		15.26 16.91 17.77		
	Det Lim	Det Lim Column 1 _4 <10 _8 <10 _8 <10 _6 <10 _4 <10 _4 <10 _4 <10 _4 <10	.4 <10 .4 <10 .8 <10 .6 <10 .4 <10 .4 <10	Det Lim Column 1 Column 2 Column 1 _4	Det Lim Column 1 Column 2 Column 1 Column 2 .4

^{*} If % moisture is reported, results are presented on a dry-weight basis.

Page 1 of 1 Engineering-Science ANALYTICAL RESULTS SUMMARY Report Aromatic Volatile Organics SW Method 8020 Lab Sample No. 12-85-1172 ES Job No. <u>56528</u> Client U.S. Air Force Field Sample No. 11-10, 5D-1 ES Project PJKS (Denver) Date Collected | 12118185 Client No. Laboratory Supervisor Approval: Johnn R. adamson OC Report No. 56538-5 /_/ Water (ug/L) Dilution Factor _____

*Moisture

Compound	C	oncentrati	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Benzene	4	<10		2.26		-
Chlorobenzene	. 4	<10		16.46	<u> </u>	
1,2-Dichlorobenzene	8	<10		27.93		
1,3-Dichlorobenzene	8	<10		26.40		
1,4-Dichlorobenzene	· .6	<10		22.51		
Ethyl benzene	4	<10		7.18		
Toluene	<i>j</i> 4	<10		5.47		
Xylenes (Dimethyl benzene)	.4	<10		15.26 16.91 17.77		

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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/X / Soil (ug/g)

/_/ Other ____

Gehrong R. adamour Laboratory Supervisor Approval: Dilution Fablor oc Report No. Moisture water (Mary) mg/L Environmental Quality Parameters Soil (ug/g) (ug/Kg) ANALYTICAL RESULTS SUMMARY Sample Matrix: Other 12/11/55 MSNF ES JOB NO. 56528 Engineering-Science Date Received Date Collected Client No. Project Client

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Report Page

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Field Sample No.	Lab Sample No.	700×	N03	Phenolica 0+G	0+6	7-03	TKN	CITT		Rotes
3K5 11-3 (14-1, ES	5611-28-71	7/0-	∠0.13>	<0.13 €0,005.	17	340	0.1	20102		
5: 1-MS h- H	7411	110.	<0. i	<0.005	\	260	0'1	20102		
SS' 1-MS' 5-11	1735	Ö,	1.0>	0100	2,37	320	0,1	20.05		
11-5 SW-2 25	9611	(808)	1.07	3000>	1>	300	9,0	<0.02		
23,1-W> 1-11	4611	15 PC	1.07	-800.0>	<1	320	0,1	<0.02		
53 1-ms t11	8611	4103	9.0	0.013.	1,27	340	0.1	20'07		
53 1-m> 8-11	6611	8 ×W	0.9	800.07	>	34 Û	ر،0	20.0>		
53 1-35 15/1	0311	510°	9.0	30°0>	1>	340	7.0	<0.02		
11-10 54-1 25	1811	X9X	٥.٩	800.0>		340	7,0	40.05		
3 7-m5 1-11	9811	,032		-300.0>	\		<0.1	<0.0≥		
53' Z- M 5' Z- 1; /	£811 A	8100	1.02	\8m ⁰ >	40.68 2.07	320	1.0>	20,07		
	Champs Der	Der J.A	Kunson		887					
			1/20	15 A. H. W. Z.					-	
Date Analyzed	E	120		1 Bitals	-/ h	is the	41	\		
Analytical Method		6PA 354.1	1.025 1193	ಏ	EPA413.1	EPA160.3	EPA 351.3	SPA 7496	_	

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^{*} If A moisture is reported, results are presented on a dry-weight basis.

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···/- 10 F Laboratory Supervisor Approval: Paye / Dilution Factor 1 Xmmy CC Report No. *Moisture Environmental Quality Parameters Soil (ug/g) (ug/Kg) ANALYTICAL RESULTS SUMMARY other Scalingist Water (ug/L) Sample Matrix: K 13/6/17/ 56528 こくな下 Engineering-Science Date Received Date Collected ES Job No. Client No. Project Client

NO, Physolia TKN C. XI		21 40.5 350 hi	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(1) (0) (学者) (0)(子)	<1 <0.5, 71 <0.17	1 10 10 10 10 10 10 10	41 0.5 1 120 KUIT	4 40.51 110 40.17	41 (40.51 200 0123.	21 <0.51 68 <0017	183.9 40.54 65 40.17		129 4+13 121 12,233	58A 351.3 80
TKN N	280	350	74	H245	4	011	120			8	65		1/2	PA 351.3 8
Physolia	<0.5		<0.5	40.5.0>	<0.5%	<0.51		40.51					4+13	58 1. COM-872
NO,	را ک	7 1	17	7	17	17	17	7	4.1	71	1×3.9		124	2 64 321.11
NO	0.065	20.08	0.053	0.059	4.0.b	9.50.0	07.0	0.056	290.0	80.07	0.053		42.24	EP# 354.1
Lab Sample No.	7911-55-71	1163	7911	//16	79//	4911	8911	63//	0611	1611	7611		M O	
Field Sample No.	PJKS 11-1 50-2 ES	11-2 50-2 55	23 1-62 E-11	53 1-0> 4-11	53 1-es'5-11	11-5,50-2,55	53 1-05 9-11	23 1-05 4-11	53 1-05 8-11	53 1-05 1:-11	53' 1-05 31-11 1		Date Analyzed	Analytical Method

L-298

If I moisture is reported, results are presented on a dry-weight basis.

Environmental Quality Parameters ANALYTICAL RESULTS SUMMARY

Paye 2 of

Laboratory Supervisor Approval:	Cohmuny F. Kalamore	Dilution Factor	*Moisture	
	Sample Matrix:	1X/ Water (water mg/	/_/ Soil (ug/g) (ug/Kg)	// Other
Es Job No. 56528 Client Lisa Korner	Project USAF. PJKS.	Client No.	Date Collected	Date Received 12 april 86

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19:30 11-5,540-> 104-86-10	٠.					
	S2/71-13	_				
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Date Analyzed	M CC 12					l
Analytical Method	132 X 132					

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Pond Water Results 601, 602, 625, Metals and Inorganics

Engineering Science Page 18

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No. <u>56423</u>	Lab Sample No	36686-22	
Client	Field Sample No. P.	JKS, 1-SW-2, IT	
ProjectAir Force PJKS	Date Collected	4-24-86	
Client No.	Date Received	4-25-86	
Laboratory Supervisor Approval:	Date Analyzed	4-30-86	
	QC Report No.	601-28	
Sample Matrix:			
<u>/X</u> / Water (ug/L)	Dilution Factor	N/A	
/ Soil	*Moisture		%
/_/ Other			
Spike Source			

	C	oncentrati	on	Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1.0	ND<1.0				
Bis(2-Chloroethoxy)methane	1.0	ND<1.0				
Bis(2-chloroisopropyl)ether	1.0	ND<1.0				
Bromobenzene	1.0	ND<1.0				
Bromodichloromethane	1.0	ND<1.0				
Bromoform	1.0	ND<1.0				
Bromomethane	1.0	ND<1.0				
Carbon tetrachloride	1.0	ND<1.0				
Chloroacetaldehyde	1.0	ND<1.0				
Chloral	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0				
Chloroethane	1.0	ND<1.0				
Chloroform	1.0	ND<1.0				
1-Chlorohexane	1.0	ND<1.0				
2-Chloroethyl vinyl ether	1.0	ND<1.0				
<u>Chloromethane</u>	1.0	ND<1.0				
Chloromethyl methyl ether	1.0	ND<1.0				
Chlorotoluene	1.0	ND<1.0				
Dibromochloromethane	1.0	ND<1.0		·]

Continued

Engineering Science Page 19

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 1-SW-2, IT

	Co	ncentratio	n	Retenti	on Time	·
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Dibromomethane	1.0	ND<1.0				
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Dichlorodifluoromethane	1.0	ND<1.0				
1,1-Dichloroethane	1.0	ND<1.0				
1,2-Dichloroethane	1.0	ND<0.1				
1,1-Dichloroethylene	1.0	ND<1.0				· · · · · · · · · · · · · · · · · · ·
trans-1,2-dichloroethylene	1.0	ND<1.0				
Dichloromethane	1.0	ND<1.0				
1,2-Dichloropropane	1.0	ND<1.0				
1,3-Dichloropropylene	1.0	ND<1.0				
1,1,2,2-Tetrachloroethane	1.0	ND<1.0				
1,1,1,2-Tetrachloroethane	1.0	ND<1.0				
Tetrachloroethylene	1.0	TR<1.0				
1,1,1-Trichloroethane	1.0	ND<1.0				
1,1,2-Trichloroethane	1.0	ND<1.0				
Trichloroethylene	1.0	TR<1.0				
Trichlorofluoromethane	1.0	ND<1.0				
Trichloropropane	1.0	ND<1.0				
Vinyl_chloride	1.0	ND<1.0				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

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ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

ES Job No56423	Lab Sample No	36686-5	
Client	Field Sample No. P.	JKS, 1-SW-2, IT	
Project Air Force PJKS	Date Collected	4-24-86	
Client No.	Date Received	4-25-86	
Laboratory Supervisor Approval:	Date Analyzed	5-13-86	
	QC Report No.	602-23	
Sample Matrix:			
/X_/ Water (ug/L)	Dilution Factor	N/A	
/ Soil	*Moisture		1
/_/ Other			
Spike Source			

Det Lim		n	<u>recenti</u>	<u>on Time</u>	_]	
Det Lim	Column 1	Column 2	Column 1	Column 2	Notes	
1.0	ND<1.0					
1.0	ND<1.0					
1.0	ND<1.0					
1.0	ND<1.0					
1.0	ND<1.0					
1.0	ND<1.0					
1.0	TR<1.0					
1.0	ND<1.0					
	\ 					
	1.0 1.0 1.0 1.0 1.0	1.0 ND<1.0 1.0 ND<1.0 1.0 ND<1.0 1.0 ND<1.0 1.0 ND<1.0 1.0 TR<1.0	1.0 ND<1.0 1.0 ND<1.0 1.0 ND<1.0 1.0 ND<1.0 1.0 ND<1.0 1.0 TR<1.0	1.0 ND<1.0 1.0 ND<1.0 1.0 ND<1.0 1.0 ND<1.0 1.0 ND<1.0 1.0 TR<1.0	1.0 ND<1.0 1.0 ND<1.0 1.0 ND<1.0 1.0 ND<1.0 1.0 ND<1.0 1.0 TR<1.0	

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Engineering Science Page 36

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ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

ES Job No56423	Lab Sample No	36686-6	
Client	Field Sample No. F	PJKS, 1-SW-2, IT	Dup.
Project Air Force PJKS	Date Collected	4-24-86	
Client No.	Date Received	4-25-86	
Laboratory Supervisor Approval:	Date Analyzed	5-13-86	
	QC Report No.	602-23	
Sample Matrix:			
/X_/ Water (ug/L)	Dilution Factor _	N/A	
/ Soil	*Moisture		\$
/_/ Other			
Spike Source			

	Co	Concentration		Retenti	_]	
Compound	Det Lim		Column 2		Column 2	Notes
Benzene	1.0	ND<1.0				
Chlorobenzene	1.0	TR<1.0				
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				<u> </u>
1,4-Dichlorobenzene	1.0	ND<1.0				
Ethyl benzene	1.0	ND<1.0				
Toluene	1.0	TR<1.0				
Xylenes (Dimethyl benzene)	1.0	ND<1.0	•			
				<u> </u>		
·						

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

ES Job No. <u>56423</u>	Lab Sample No	36686-7	
Client	Field Sample No.	PJKS, 1-SW-2, IT	Spike
Project Air Force PJKS	Date Collected _	4-24-86	
Client No.	Date Received _	4-25-86	
Laboratory Supervisor Approval:	Date Analyzed	5-13-86	
	QC Report No	602-23	
Sample Matrix:			
<u>/X</u> / Water (ug/L)	Dilution Factor	N/A	
/ Soil	*Moisture		\$
/ Other			
Spike Source			

•	Co	Concentration		Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzene	1.0	10.5		2.5		
Chlorobenzene	1.0	9.6		7.8		
1,2-Dichlorobenzene	1.0	10.3		14.3		
1,3-Dichlorobenzene	1.0	10.4		12.8		
1,4-Dichlorobenzene	1.0	10.2		12.7		
Ethyl benzene	1.0	9.6		7.3		
Toluene	1.0	8.9		4.8		
Xylenes (Dimethyl benzene)	1.0					
				i 		

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ES ENGINEERING-SCIENCE

RESEARCH AND DEVELOPMENT LABORATORY • 600 BANCROFT WAY • BERKELEY, CALIFORNIA 94710 • 415/841-7353

Priority Pollutant Analysis Base Neutrals - EPA 625

Date Received 1-13-86 Date Reported 2-7-86

P.O. No. --Job No. 8047.19 Page 1 OF 4

For: ES-Atlanta/PJKS, Denver, CO Attn: Johnny Adamson

Address:

3.

Lab No: Source of Sample: 860123 860124 01-86-1086 01-86-1087 Pond + Sed. nator

Collected:

Water 1-9-86

Soil 1-9-86

Collected:

an pound		ANALYTICAL RESULTS
•	ug/L	<u>ug/g</u>
1,3-Dichlorobenzene	<2	<0.05
1,4-Dichlorobenzene	<2	<0.05
Hexachloroethane	<2	<0.05
Bis(2-chloroethy1)ether	<6	<0.2
1,2-Dichlorobenzene	<2	<0.05
Bis(2-chloroisopropyl)ether	<6	<0.2
N-Nitrosodi-n-propyl amine	< 10	<0.2
Hexachlorobutadiene	<2	<0.05
1,2,4-Trichlorobenzene	<2	<0.05
Isophorone	<2	<0.05
Naphthalene	<2	<0.05
Bis(2-chloroethoxy)methane	<5	<0.1
2-Chloronaphthalene	<2	<0.05
Acenaphthylene	<4	<0.1
Acenaphthene	<2	<0.05
Dimethyl phthalate	<2	<0.05
2,6-Dinitrotoluene	~2	<0.05
Fluorene	<2	<0.05
2,4-Dinitrotoluene	<6	<0.2
Diethylphthalate	<2	<0.05
N-Nitrosodiphenylamine	<2	<0.05
Hexachlorobenzene	<2	<0.05

Priority Pollutant Analysis Base Neutrals - EPA 625 (continued)

Date Received 1-13-86

P.O. No. --Job No. 8047.19 Page 2 OF 4

Date Reported 2-7-86

For: ES-Atlanta/PJKS, Denver, CO Attn: Johnny Adamson

Address:

Lab No:

Source of Sample:

Date Collected: Time Collected: 860123 860124

01-86-1086 01-86-1087

Water Soil 1-9-86 1-9-86 1430

Compound	ug/L	ANALYTICAL RESULTS
• • •		
Phenanthrene	<5	<0.1
Anthracene	<2	<0.05
Dibutyl phthalate	<2	<0.05
Pluoranthene	<2	<0.05
Pyrene	<2	<0.05
Butyl benzyl phthalate	· <2	<0.05
Bis(2-ethylhexyl) phthalate	<2	<0.05
Chrysene	<2	<0.05
Benzo(a)anthracene	<8	<0.2
Di-n-octylphthalate	<2	<0.05
Benzo(b) fluoranthene	<5	<0.1
Benzo(k)fluoranthene	<2	<0.05
Benzo(a)pyrene	<2	<0.05
Indeno(1,2,3-c,d)pyrene	<4	<0.1
Dibenzo(a,h)anthracene	<2	<0.05
Benzo(ghi)perylene	<4	<0.1

Priority Pollutant Analysis Pesticides and PCBs- EPA 625

Date Received 1-13-86 Date Reported 2-7-86

P.O. No. --Job No. 8047.19 Page 3 OF 4

For: ES-Atlanta/PJKS, Denver, CO Attn: Johnny Adamson

Address:

Lab No:

Source of Sample:

Date Collected:

Time Collected:

860123 860124

01-86-1086 01-86-1087

Water

Soil

1-9-86

1-9-86

1430

Compound .	ug/L_	ANALYTICAL RESULTS
Alpha-BHC	<4	<0.1
Gamma-BHC	<4	<0.1
Beta-BHC	<4	<0.1
Heptachlor	<2	<0.05
Delta-BHC	· <4	<0.1
Aldrin	<2	<0.05
Heptachlor epoxide	<2	<0.05
Endosulfan I	<10	<0.2
Dieldrin	<2	<0.05
4,4'-DDE	<6	<0.2
Endrin	<10	<0.2
Endosulfan II	<10	<0.2
4,4'-DDD	<3	<0.08
4,4'-DDT	<5	<0.1
Endosulfan Sulfate	<6	<0.2
Endrin aldehyde	<20	<0.5
Chlordane	<10	<0.2
Toxaphene	<50	<1
PCB-1016	<40	<1
PCB-1221	· <40	<1
PCB-1232	<40	<1
PCB-1242	<40	<1
PCB-1248	<40	<1
PCB-1254	<40	<1
PCB-1260	<40	<1

Priority Pollutant Analysis Acid Extractables - EPA 625

Date Received 1-13-86 Date Reported 2-7-86

P.O. No. --Job No. 8047.19 Page 4 OF 4

For: ES-Atlanta/PJKS, Denver, CO

Attn: Johnny Adamson

Address:

Lab No: Source of Sample: 860123 860124

01-86-1086 01-86-1087

Date Collected:

Water Soil 1-9-86 1-9-86

Time Collected:

Compound .	ug/L	ANALYTICAL RESULTSug/g
2-Chlorophenol	<4	<0.1
2-Nitrophenol	<4	<0.t
Phenol	<2	<0.05
2,4-Dimethylphenol	<3	· <0.08
2,4-Dichlorophenol	<3	<0.08
2,4,6-Trichlorophenol	<3	<0.08
4-Chloro-3-methylphenol	<3	<0.08
2,4-Dinitrophenol	. <40	<1
2-Methyl-4,6-Dinitrophenol	<20	<0.5
Pentachlorophenol	<4	<0.1
4-Nitrophenol	<5	<0.1

Engineering-Science	ANALYTICAL RESULTS SUMMARY Environmental Quality Parameters	Report
ES JOB NO. 56528		CC Report No.
Client 1899		Laboratory Supervisor Approval:
Project PJKS Plant	Sample Matrix:	Comment of Commence
Client No.	Water (ug/b) (mg/c)	Difution Factory
Date Collected of Jun. 86	/ Soil (ug/g) (ug/kg)	*Moisture
Date Received 10 Jan. 86	/ Other	

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Field Sample No.	Lab Sample No.	700	200	5 20	ו מפייטויני		7	+	+	T
DAVC 1-CL1.1 SC	7801-78-10	_	4.8	3,05	3,05 (0.005 (0.1 (40.02	100>	20.02			T
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Date Analyzed	Σ	/5	/3	12/	19	او/	0	V	1	
Analytical Method		1. 426 A53	158 A3.1	1599.413	Septimes.	80A 351.3	289354.1 [8PB 35.1.1 [8PB 413.1] 8PB 420.1 [8PB 433.1.5] L. HSC ASS			
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* If & moisture is reported, results are presented on

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Lab Sample No.	18-18-18								E	
Field Sample No.	87KS 1-50-1, ES								Date Analyzed	Analytical Method

* If & moisture is reported, results are presented on a dry-weight basis.

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all proposes			Plant Plant
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TEACHER !	A	Eng i nee	ES Job No. Client Project Client No. Date Recel

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Laboratory Supervisor Approval: Page Report dilution Factor OC Report No. Dedunant Jahranas *Moisture Soil (ug/g) (ug/Kg) ANALYTICAL RESULTS SUMMARY other Pond Water (ug/L) Metals Sample Matrix: 尽 <u>ی</u> ح Plant ES JON NO. 3653 & USAF PJKS Engineering-Science Date Collected Date Received Client No. Project Client

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Field Sample No.	1/2 1-50-1, ES C												Date Analyzed	Analytical Method

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P - Inductively Coupled Plasma

II - Hydride Vapor AAS

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Laboratory Supervisor Approval: Report Page Dilution Factor (Jehrner OC Report No. *Moisture Environmental Quality Parameters Soil (ug/g) (ug/Kg) Water (ug/by (mrg/) ANALYTICAL RESULTS SUMMARY Sample Matrix: Other Date Received 10 Jan.86 Date Collected of Jung 86 86575 クセクス Engineering-Science ES Job No. Client No. Project Client

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10 Man 86 P3KS Plant ES JOD NO. 56528 NSAF Date Collected Client No. Project Client

Date Received

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Soil (ug/g) (ug/Kg) Water (ug/L) (mg/ Sample Matrix:

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*Moisture

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Lab Sample No.	- 78-14	784-43-10												
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Field Sample No.	PTKS 1-56-1,85 01-86-1086 KB	1-35-1										•	lyzed	Analytical Method
ld San	125												Date Analyzed	lytica
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, II = Hydride Vapor AAS r - riame AAS are presented on a dry-weight basis. It . moisture is reported, results

* Results Hamskined from page L-427

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P = Inductively Coupled Plasma

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Samo Laboratory Supervisor Approval: Report Page Dilution Factor ge Report No. Volument *Moisture other Pand Seliments Environmental Quality Parameters Soil (ug/g) (ug/Kg) ANALYTICAL RESULTS SUMMARY Water (ug/L) Sample Matrix: 12/ PJKS Plant (Denver) 98-01-26528 Engineering-Science Date Collected Date Received ES Job No. Client No. Project Client

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Lab Sample No.	61-86-1087										E	
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ANALYTICAL RESULTS SUMMARY Metals

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Page	Repor

8 5 30 No. 56 53 K		QC Report No.
Client USAP		Laboratory Supervisor Appro
Project PJKS Plant	Sample Matrix:	Oshmy K. Odom
Client No.	/ / Water (ug/L)	bilution Fator
Date Collected 9 (% % & C	/ / Soil (ug/g) (ug/kg)	*Moisture
	1/21 other Pond T-8A Dedunant (Mg/a	Dedument (mg/a)
)		

Laboratory Supervisor Approval:	Commy K. Udomon	bilution Factor	*Moisture	Dedunent (mg(g)
	Matrixi	Water (ug/L)	Soil (ug/g) (ug/Kg)	other Pand T-8A

Field Sample No.	Lab Sample No.	As	As Cd Cr		완	Pb Se	Se							
PTVS 1-50-1, 85	F801.98-10	3.1	40.40	86	\$\frac{1}{8}\frac{1}{8	40.40 28 KU. 004 0.010 0.000	0,000							
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Date Analyzed	E O	15/2	218	C./	4	18	700	7						
Analytical Method	**	306.3 213.1		204 21801	2 PA EPA	239.1 S	£104 27-01-3							
 If \ moisture is reported, results are presented on a dry-weight basis 	reported, results dry-weight basis	19.		# # # _	F = Flame AAS H = Hydride V	d e	C = CC	old Va	C = Cold Vapor AAS AAS P = Induct	S G tively	= Gra	Vapor AAS G = Graphite Furi P = Inductively Coupled Plasma	Graphite Furnace Coupled Plasma	e AAS

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ES Results for 601 and 602 Methods Dated 1/29/86

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

Page _	of	<u>1</u> _
Report		

ES Job No. <u>56528</u>	Lab Sample No
Client U.S. Air Force	Field Sample No. 1-MW-1, GW-1 ES
Project PJKS (Denver)	Date Collected 1/H/86
Client No.	Date Received 1/5/86
Laboratory Supervisor Approval:	Date Analyzed 1/29/86
Johnny R. adamson Sample Matrix:	QC Report No
/X_/ Water (ug/L)	Dilution Factor
// Soil (ug/g) (ug/Kg)	*Moisture
/ / Other	

Compound	C	oncentrat	ion	Retent	ion Time	Notes
	Det Lim	Column 1	Column 2	Column	1 Column	2
Bromodichloromethane	0.10	<10		15.69	1	
Bromoform	0.20	<10	1	21.24		
Bromomethane	1.18	<10	1	2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10	!	4.51		
2-Chloroethylvinyl ether	0.13	<10	1	19.49		
Chloroform	0.05	<10	l	13.01		
Chloromethane	0.08	<10		1.95		
Dibromochloromethane	0.09	₹10	1	18.68		
1,2-Dichlorobenzene	0.15	<10		· 60 • 1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10	i -	11.67		
1,2-Dichloroethane	0.03	<0.1	i	13.55		
1,1-Dichloroethene	0.13	<10	<u> </u>	10.31		1
trans-1,2-Dichloroethene	0.10	30.4	<0.1	12.35	11.93	1
1,2-Dichloropropane	0.08	<10	1	17.19		1
cis-1,3-Dichloropropene	0.20	14.3	<0.2	18.68	13.19	1 7
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0	i	7.50		
1,1,2,2-Tetrachloroethane	1.0.03	<10	i	23.47		
Tetrachloroethene	i 0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10	i	14.76		
1,1,2-Trichloroethane	0.02	<10	!	18.68		
Trichloroethene	10.12	224	1 3.9	17.91	9.61	T
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		
	1	 	!			-

^{*} If * moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the

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correct value.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

Page	of _
Report	

ES Job No.	56528	Lab Sample No.	1-86-1180
Client	U.S. Air Force	Field Sample No.	1-MW-2, EW-2, ES
Project	PJK3 (Denver)	Date Collected	1/16/86
Client No.		Date Received	1/17/86
Laboratory	Supervisor Approval:	Date Analyzed	1/30/86
John Sample Mat	n Radimson	QC Report No.	56528-11
	Water (ug/L)	Dilution Factor	
/	Soil (ug/g) (ug/Kg)	*Moisture	
/ /	Other		

Det Lim Column 1 Column 2 Column 2 Column 2	Compound	С	oncentrati	on	Retent:	ion Time_	Notes
Bromoform		Det Lim	Column 1	Column 2	Column	Column 2	
Bromomethane	Bromodichloromethane	0.10	<10		15.69		
Carbon tetrachloride 0.12 (4.0 15.47 Chlorobenzene 0.25 (10 26.01 Chloroethane 0.52 (10 4.51 2-Chloroethylvinyl ether 0.13 (10 19.49 Chloroform 0.05 (10 13.01 Chloromethane 0.08 (10 -1.95 2.00 13.01 Chloromethane 0.08 (10 -1.95 2.00 2	Bromoform	0.20	<10		21.24		
Chlorobenzene 0.25 <10 26.01 Chloroethane 0.52 <10	Bromomethane	i 1.18	<10		2.85		
Chloroethane 0.52 <10 4.51 2-Chloroethylvinyl ether 0.13 <10	Carbon tetrachloride	0.12	<4.0		15.47		
2-Chloroethylvinyl ether 0.13 <10	Chlorobenzene	0.25	<10		26.01		
Chloroform 0.05 <10 13.01 Chloromethane 0.08 <10	Chloroethane	0.52	<10		4.51		
Chloromethane 0.08 <10 -1.95 Dibromochloromethane 0.09 <10	2-Chloroethylvinyl ether	0.13	<10		19.49		
Dibromochloromethane 0.09 <10 18.68 1,2-Dichlorobenzene 0.15 <10		0.05	<10		13.01		
1,2-Dichlorobenzene 0.15 <10	Chloromethane	0.08	<10		- 1.95		
1,3-Dichlorobenzene 0.32 <10	Dibromochloromethane	10.09	<10		18.68	• •	
1,4-Dichlorobenzene 0.24 <10	1,2-Dichlorobenzene	0.15	<10	_	60.1		
Dichlorodifluoromethane 1.81 <10	1,3-Dichlorobenzene	0.32	<10		42.9		
1,1-Dichloroethane 0.07 <10	1,4-Dichlorobenzene	0.24	<10		37.3	•	
1,2-Dichloroethane 0.03 <0.1	Dichlorodifluoromethane	11.81	<10		3.54		
1,1-Dichloroethene 0.13 <10	1,1-Dichloroethane	0.07	<10		11.67		
trans-1,2-Dichloroethene 0.10 38.7 ∠0.10 12.35 II.93 1,2-Dichloropropane 0.08 <10	1,2-Dichloroethane	0.03	<0.1	i	13.55		
1,2-Dichloropropane 0.08 <10	1,1-Dichloroethene	0.13	<10		10.31		
1,2-Dichloropropane 0.08 <10	trans-1,2-Dichloroethene	0.10	38.7	40.10	12.35	11,93	1
cis-1,3-Dichloropropene 0.20 <10	1.2-Dichloropropane	0.08	<10		17.19		
trans-1,3-Dichloropropene 0.10 (10 17.24 Methylene chloride 0.25 (4.0) 7.50 1,1,2,2-Tetrachloroethane 0.03 (10 23.47 Tetrachloroethene 0.03 (4.0) 23.47 1,1,1-Trichloroethane 0.03 (10) 14.76 1,1,2-Trichloroethane 0.02 (10) 18.68 Trichloroethene 0.12 %6.0 7.24 17.91 9.61 Trichlorofluoromethane 0.01 (10) 8.58		0.20	<10	i	18.68		
1,1,2,2-Tetrachloroethane 0.03 <10			<10	i	17.24		
Tetrachloroethene 0.03 <4.0	Methylene chloride	0.25	<4.0	l	7.50		
1,1,1-Trichloroethane 0.03 <10	1,1,2,2-Tetrachloroethane	1-0.03	<10		23.47		
1,1,2-Trichloroethane 0.02 <10	Tetrachloroethene	0.03	<4.0		23.47		
Trichloroethene 0.12 86.0 1.24 17.91 9.61 1 Trichlorofluoromethane 0.01 <10	1,1,1-Trichloroethane	0.03	<10	i	14.76		I
Trichlorofluoromethane 0.01 <10 8.58		10.02	<10	!	18.68		
	Trichloroethene	10.12	86.0	1.24	17.91	9.61	
Vinyl chloride 0.18 <10 3.54	Trichlorofluoromethane	: 0.01	<10	ł	8.58		
	Vinyl chloride	0.18	<10	l	3.54		
		<u> </u>	 	<u> </u>	 	 	

^{*} If % moisture is reported, results are presented on a dry-weight basis.

Due to interference observed on column, the quantitation obtained on column 2 is the correct value. L-318 note 1:

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

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Report		

Client U.S. Air Force Field Sample No. 1-MW-2, GW-1, ES	ES Job No 56528	Lab Sample No. 1-86-112	<u> </u>
Client No. Date Received 15 56 Laboratory Supervisor Approval: Date Analyzed 1/24/86 QC Report No.	Client U.S. Air Force	Field Sample No. 1-MW-2, GW-1, E	<u>S</u>
Date Analyzed 1/24/86	Project PJKS (Denver)	Date Collected 1/14/86	_
Chample Matrix: /X / Water (ug/L) Dilution Factor / Soil (ug/g) (ug/Kg) *Moisture *Moist	Client No.	Date Received 1/15/56	
/X / Water (ug/L) Dilution Factor / / Soil (ug/g) (ug/Kg) *Moisture	Laboratory Supervisor Approva	l: Date Analyzed 1/24/86	_
/_/ Soil (ug/g) (ug/Kg) *Moisture	John P. Colamosample Matrix:	QC Report No. 56528-11	
	/X / Water (ug/L)	Dilution Factor	
/_/ Other	// Soil (ug/g) (ug/Kg)	*Moisture	_*
	/_/ Other	· · · · · · · · · · · · · · · · · · ·	

Compound		oncentrat	ion	Retenti	on Time	Note:
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69	1	
Bromoform	0.20	<10	1	21.24		
Bromomethane	1 1.18	<10	1	2.85		
Carbon tetrachloride	10.12	<4.0	i	15.47	1	
Chlorobenzene	0.25	<10	(26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10	1	19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		-1.95		
Dibromochloromethane	10.09	<10	1	18.68	•	
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3	•	
Dichlorodifluoromethane	1 1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67	1	
1,2-Dichloroethane	0.03	<0.1	i	13.55		
1,1-Dichloroethene	10.13	<10	i	10.31		
trans-1,2-Dichloroethene	0.10	56.2	10.1	12.35	11.93	ŀ
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	410		18.68		
trans-1,3-Dichloropropene	0.10	<10	i	17.24		
Methylene chloride	0.25	<4.0	i	7.50		
1,1,2,2-Tetrachloroethane	.0.03	<10	1	23.47	i i	
Tetrachloroethene	0.03	<4.0	1	23.47		
1,1,1-Trichloroethane	0.03	<10	1	14.76		
1,1,2-Trichloroethane	0.02	·<10	!	18.68		
Trichloroethene	! 0.12	132	1.3	17.91	9.61	1
Trichlorofluoromethane	: 0.01	<10	!	8.58		
Vinyl chloride	0.18	<10	İ	3.54		
	i		<u> </u>			
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^{*} If * moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the

quantitation obtained on column 2 is the

862J137 correct value L-319

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

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ES Job No.	56528	Lab Sample No. 1-86-1130	
Client _	U.S. Air Force	Field Sample No. 2-MW-3 GW-1	ES
Project _	PJKS (Denver)	Date Collected 1/15/86	_
Client No.	•	Date Received 1/16/86	
Laboratory	y Supervisor Approval:	Date Analyzed	
Johnn Sample Mar	R Comson	QC Report No. <u>56528-11</u>	
<u>/x</u> _/	Water (ug/L)	Dilution Factor	
/_/	Soil (ug/g) (ug/Kg)	*Moisture	•
/_/	Other		

Compound	С	oncentrati	.on	Retent	ion Time	Notes
	Det Lim	Column 1	Column 2	Column	1 Column 2	1
Bromodichloromethane	0.10	(10		15 60		
		<10		15.69		
Bromoform	0.20	<10		21.24		<u> </u>
Bromomethane	i 1.18	<10		2.85		
Carbon tetrachloride	0.12.	<4.0		15.47		<u> </u>
Chlorobenzene	0.25	<10		26.01		ļ
Chloroethane	0.52	<10		4.51	_}	<u> </u>
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10	<u>-</u> .	13.01		<u> </u>
Chloromethane	0.08	<10		- 1.95		
Dibromochloromethane	0.09	<10		18.68		L
1,2-Dichlorobenzene	0.15	<10		60.1	•	<u> </u>
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10	,	37.3	,	
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10	_	10.31		
trans-1,2-Dichloroethene	0.10	237	0.14	12.35	11.43	i
1,2-Dichloropropane	0.08	<10	: 1.	17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		i
trans-1,3-Dichloropropene	0.10	<10		17.24		<u> </u>
Methylene chloride	10.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	.0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	10.03	<10		14.76		
1,1,2-Trichloroethane	: 0.02	<10		18.68	1	
Trichloroethene	! 0.12	735	0.83	17.91	9,61	1
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis. note 1: Due to interference observed on column 1, the quantitation obtained on column 2 is the correct value. L-320 862J137

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ES Job No. 56528	Lab Sample No	1-86-1178
Client U.S. Air Force	Field Sample No.	4-MW-4, GW-1, ES
Project PJKS (Denver)	Date Collected	-116/86
Client No.	Date Received	1117/86
Laboratory Supervisor Approval:	Date Analyzed	1/29/86
Johnny R. Colamora Sample Matrix.	QC Report No.	56528-11
/X / Water (ug/L)	Dilution Factor _	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/_/ Other		

Compound	C	oncentrati	on	Retenti	on Time	Notes
•	Det Lim	Column 1	Column 2	Column 1	Column 2	
					1	
Bromodichloromethane	0.10	<10		15.69	1	
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10	• .	13.01		
Chloromethane	0.08	<10		- 1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3	•	
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1	ĺ	13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	77.3	40.10	12.35	11.93	
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	10.10	<10		17.24		
Methylene chloride	1 0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	1.0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	95.4	0.34	17.91	9,61	
Trichlorofluoromethane	0.01	<10	1	8.58		
Vinyl chloride	0.18	<10		3.54		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

note! Due to interference observed on column 1, the quantitation obtained on column 2 is the

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ES Job No.	56528	Lab Sample No	1-86-1179
Client _	U.S. Air Force	Field Sample No.	4-MW-5, GW-1, E
Project _	PJKS (Denver)	Date Collected	1/16/86
Client No.	•	Date Received	1/17/86
Laboratory	y Supervisor Approval:	Date Analyzed	1/29/86
Sample Mar	R. Cidamoin	QC Report No.	56528-11
<u>/x</u> _/	Water (ug/L)	Dilution Factor _	
//	Soil (ug/g) (ug/Kg)	*Moisture	
/_/	Other		

Compound	c	oncentration		Retent	ic	on Time	Notes
	Det Lim	Column 1 Colu	mn 2	Column	1	Column	2
Bromodichloromethane	0.10	<10		15.69			
Bromoform	0.20	<10		21.24			1
Bromomethane	1.18	<10		2.85			
Carbon tetrachloride	0.12	<4.0		15.47			
Chlorobenzene	0.25	<10		26.01			
Chloroethane	0.52	<10		4.51			
2-Chloroethylvinyl ether	0.13	<10		19.49			
Chloroform	0.05	<10		13.01			
Chloromethane	0.08	<10		-1.95			
Dibromochloromethane	0.09	<10		18.68			
1,2-Dichlorobenzene	0.15	<10		60.1	٠		
1,3-Dichlorobenzene	0.32	<10		42.9			
1,4-Dichlorobenzene	0.24	<10		37.3		•	T
Dichlorodifluoromethane	1.81	<10		3.54			
1,1-Dichloroethane	0.07	<10		11.67			
1,2-Dichloroethane	0.03	<0.1		13.55			
1,1-Dichloroethene	0.13	<10		10.31			
trans-1,2-Dichloroethene	0.10	<10		12.35			
1,2-Dichloropropane	10.08	<10		17.19			
cis-1,3-Dichloropropene	0.20	<10		18.68			
trans-1,3-Dichloropropene	10.10	<10		17.24			
Methylene chloride	0.25	<4.0		7.50			
1,1,2,2-Tetrachloroethane	1.0.03	<10		23.47			
Tetrachloroethene	0.03	<4.0		23.47			
1,1,1-Trichloroethane	0.03	<10 i		14.76			
1,1,2-Trichloroethane	: 0.02	<10 !		18.68			
Trichloroethene	10.12	<1.0 i		17.91			
Trichlorofluoromethane	0.01	<10		8.58			
Vinyl chloride	0.18	<10		3.54	_		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. <u>56528</u>	Lab Sample No	1-86-1133
Client U.S. Air Force	Field Sample No.	4-MW-6, GW-2, ES
Project PJKS (Denver)	Date Collected	1/15/86
Client No.	Date Received	1/16/86
Laboratory Supervisor Approval:	Date Analyzed	1/29/86
Johnny R. adamoin Sample Matrix	QC Report No.	56528-11
/X / Water (ug/L)	Dilution Factor _	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	<u> </u>
/ / Other		

	Det Lim				on Time	Notes
	Def TIM	Column 1	Column	2 Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
hlorobenzene	0.25	<10		26.01	Ī	
Chloroethane	0.52	<10		4.51		
-Chloroethylvinyl ether	0.13	<10		19.49	†	
hloroform	0.05	<10	<u> </u>	13.01		
Chloromethane	0.08	<10		_ 1.95		
ibromochloromethane	0.09	<10		18.68	^)	
,2-Dichlorobenzene	0.15	<10		60.1 -		
,3-Dichlorobenzene	0.32	<10		42.9		
,4-Dichlorobenzene	0.24	<10		37.3		
ichlorodifluoromethane	1.81	<10		3.54		
,1-Dichloroethane	0.07	<10		11.67		
,2-Dichloroethane	0.03	<0.1	i	13.55		
,1-Dichloroethene	0.13	<10		10.31		
rans-1,2-Dichloroethene	0.10	325	20.10	12.35	11,93	1
,2-Dichloropropane .	0.08	<10		17.19		
is-1,3-Dichloropropene	0.20	<10		18.68		
rans-1,3-Dichloropropens	0.10	<10		17.24		
ethylene chloride	0.25	<4.0		7.50		
,1,2,2-Tetrachloroethane	1,0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		
,1,1-Trichloroethane	0.03	<10		14.76		
,1,2-Trichloroethane	0.02	<10	1	18.68		
richloroethene	10.12	(1.0		17.91		I
richlorofluoromethane	10.01	<10	1	8.58		
inyl chloride	0.18	<10		3.54		
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^{*} If * moisture is reported, results are presented on a dry-weight basis.

note! Due to interference observed on column!, the quantitation obtained on column 2 is the source value. L-323

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ES Job No.	56528	Lab Sample No	1-86-1132
Client	U.S. Air Force	Field Sample No.	4-MW-6, GW-1, ES
Project	PJKS (Denver)	Date Collected _	1/15/86
Client No.		Date Received	1/16/86
Laboratory	Supervisor Approval:	Date Analyzed _	1/29/86
Johnn Sample Mat	ride Radamson	QC Report No.	56528- II
<u>/x</u> _/	Water (ug/L)	Dilution Factor	
/_/	Soil (ug/g) (ug/Kg)	*Moisture	
//	Other		

Compound	c	oncentrati	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column	2 Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24	1	
Bromomethane	1.18	<10		2.85		
Carbon tetrachloride	0.12	<4.0		15.47	Ţ	
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10	į	4.51		
2-Chloroethylvinyl ether	0.13	<10 .		19.49		
Chloroform	0.05	<10	•	13.01		
Chloromethane	0.08	<10		- 1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3	•	i
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1	i	13.55		
1,1-Dichloroethene	0.13	<10		10.31	i	
trans-1,2-Dichloroethene	0.10	307	40.1	12.35	11.93	ī
1,2-Dichloropropane	0.08	<10		17.19	1	
cis-1,3-Dichloropropene	0.20	<10		18.68	 	
trans-1,3-Dichloropropene	0.10	< 1.0	İ	17.24	1	İ
Methylene chloride	0.25	<4.0		7.50		1
1,1,2,2-Tetrachloroethane	1.0.03	<10		23.47		
Tetrachloroethene	0.03	<4.0		23.47		1
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10	1	18.68		
Trichloroethene	10.12	61.3	(0.12	17.91	1.61	
Trichlorofluoromethane	0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		
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* If & moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the
guantilation obtained on column 2 is the
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ES Job No. 56528	Lab Sample No. 1-86-1177
Client U.S. Air Force	Field Sample No. 2-MW-7, GW-1, E
Project PJKS (Denver)	Date Collected 1/16/86
Client No.	Date Received 1/17/86
Laboratory Supervisor Approval:	Date Analyzed 1/24/86
Johnn R. adamson Sample Matrix:	QC Report No
/X_/ Water (ug/L)	Dilution Factor
/_/ Soil (ug/g) (ug/Kg)	*Moisture
/ / Other	

Compound	Concentration			Retention Time		Notes	
	Det Lim	Column 1	Column 2	Column 1	Column 2		
Bromodichloromethane	0.10	<10		15.69			
Bromoform	0.20	<10		21.24			
Bromomethane	1.18	<10		2.85			
Carbon tetrachloride	0.12	<4.0		15.47			
Chlorobenzene	0.25	<10		26.01			
Chloroethane	0.52	<10		4.51			
2-Chloroethylvinyl ether	0.13	<10		19.49			
Chloroform	0.05	<10	• • • •	13.01			
Chloromethane	0.08	<10		- 1.95			
Dibromochloromethane	0.09	<10,		18.68	• .		
1,2-Dichlorobenzene	0.15	<10		60.1 -			
1,3-Dichlorobenzene	0.32	<10	_	42.9			
1,4-Dichlorobenzene	0.24	<10		37.3			
Dichlorodifluoromethane	1.81	<10		3.54			
1,1-Dichloroethane	0.07	<10		11.67			
1,2-Dichloroethane	0.03	<0.1		13.55			
1,1-Dichloroethene	0.13	<10		10.31			
trans-1,2-Dichloroethene	0.10	<10		12.35			
1,2-Dichloropropane	0.08	<10		17.19			
cis-1,3-Dichloropropene	0.20	<10	<u> </u>	18.68			
trans-1,3-Dichloropropene	0.10	<10		17.24			
Methylene chloride	0.25	<4.0	ĺ	7.50			
1,1,2,2-Tetrachloroethane	0.03	<10		23.47			
Tetrachloroethene	10.03	<4.0		23.47			
1,1,1-Trichloroethane	0.03	<10	İ	14.76			
1,1,2-Trichloroethane	10.02	<10		18.68			
Trichloroethene	10.12	<1.0	l .	17.91			
Trichlorofluoromethane	0.01	<10		8.58			
Vinyl chloride	0.18	<10		3.54			
	<u> </u>	 			-		

^{*} If * moisture is reported, results are presented on a dry-weight basis.

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ES Job No. <u>56528</u>	Lab Sample No	1-86-1131
Client U.S. Air Force	Field Sample No.	10-MW-8, GW-1, ES
Project PJKS (Denver)	Date Collected	1/15/86
Client No.	Date Received	1/16/86
Laboratory Supervisor Approval:	Date Analyzed _	1/29/86
Johnny R. adamson Sample Matrid:	QC Report No	56528-11
/X / Water (ug/L)	Dilution Factor	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/ / Other		

Compound	Concentration				Retention Time		
	Det Lim	Column 1	Column	2 0	column 1	Column 2	
Bromodichloromethane	0.10	<10		\dashv	15.69		
Bromoform	0.20	<10		\neg	21.24		
Bromomethane	1.18	<10		\top	2.85		
Carbon tetrachloride	0.12	<4.0		\neg	15.47		
Chlorobenzene	0.25	<10			26.01		
Chloroethane	0.52	<10			4.51		
2-Chloroethylvinyl ether	0.13	<10		\top	19.49		
Chloroform	0.05	<10	• .		13.01		
Chloromethane	0.08	<10		\Box	-1.95		
Dibromochloromethane	0.09	<10		\neg	18.68	1.	
1,2-Dichlorobenzene	0.15	<10		\Box	60.1		
1,3-Dichlorobenzene	0.32	<10		$\neg \vdash$	42.9		
1,4-Dichlorobenzene	0.24	<10		Т	37.3		
Dichlorodifluoromethane	11.81	<10		\neg	3.54		
1,1-Dichloroethane	0.07	<10		\neg	11.67		
1,2-Dichloroethane	0.03	<0.1		\top	13.55		
1,1-Dichloroethene	0.13	<10			10.31		
trans-1,2-Dichloroethene	0.10	33.2	40.10	,	12.35	11.93)
1,2-Dichloropropane	0.08	<10		丁	17.19		
cis-1,3-Dichloropropene	0.20	<10			18.68		
trans-1,3-Dichloropropene	0.10	<10			17.24		
Methylene chloride	0.25	<4.0		\neg	7.50		
1,1,2,2-Tetrachloroethane	.0.03	<10			23.47		
Tetrachloroethene	i 0.03	<4.0			23.47		
1,1,1-Trichloroethane	0.03	<10			14.76		
1,1,2-Trichloroethane	0.02	<10			18.68		
Trichloroethene	0.12	433	20.12	\Box	17.91	9.61	
Trichlorofluoromethane	10.01	<10			8.58		
Vinyl chloride	0.18	<10		\neg	3.54		
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"If & moisture is reported, results are presented on a dry-weight basis.

note 1: Due to interference observed on column 1, the

quantitation obtained on column 2 is the

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correct value. L-32

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ES Job No. 56528	Lab Sample No	1-86-1182
Client U.S. Air Force	Field Sample No.	Trip flenk
Project PJKS (Denver)	Date Collected)
Client No.	Date Received	1/17)86
Laboratory Supervisor Approval:	Date Analyzed	1/30/86
Johnne R. Odamour Sample Matrix:	QC Report No.	56528-11
/X / Water (ug/L)	Dilution Factor _	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/ / Other		

Compound	С	oncentrati	ion	Retenti	on Time	Notes
	Det Lim	Column 1	Column 2	Column 1	Column 2	
Bromodichloromethane	0.10	<10		15.69		
Bromoform	0.20	<10		21.24		
Bromomethane	1.18	<10		2.85	<u> </u>	
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10	_	19.49		
Chloroform	0.05	<10		13.01		
Chloromethane	0.08	<10		- 1.95		
Dibromochloromethane	0.09	<10		18.68		
1,2-Dichlorobenzene	0.15	<10		60.1 -		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10	•	37.3	,	
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10		11.67		
1,2-Dichloroethane	0.03	<0.1		13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10		12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10		18.68		
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0		7.50		
1,1,2,2-Tetrachloroethane	.0.03	<10		23.47		
-Tetrachloroethene	0.03	<4.0		23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10		18.68		
Trichloroethene	0.12	<1.0		17.91		
Trichlorofluoromethane	1 0.01	<10		8.58		
Vinyl chloride	0.18	<10		3.54		
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^{*} If & moisture is reported, results are presented on a dry-weight basis.

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ES Job No56	528	Lab Sample No.	1-86-1181
ClientU.	S. Air Force	Field Sample No.	Sild flank
Project PJ	KS (Denver)	Date Collected	
Client No		Date Received	11.7/86
Laboratory Sup	ervisor Approval:	Date Analyzed	1/30/86
Johnny Sample Matrix	R. adamson	QC Report No	56528-11
<u>/X</u> / Wate	r (ug/L)	Dilution Factor _	
/_/ Soil	(ug/g) (ug/Kg)	*Moisture	
/_/ Othe	r		

Compound	Concentration Retention Time		Notes			
! 	Det Lim	Column 1	Column 2	Column	1 Column 2	
•			 	1	<u> </u>	
Bromodichloromethane	0.10	<10	1	15.69	1	
Bromoform	0.20	<10	-	21.24		
Bromomethane	1.18	<10	ł	2.85		
Carbon tetrachloride	0.12	<4.0		15.47		
Chlorobenzene	0.25	<10		26.01		
Chloroethane	0.52	<10		4.51		
2-Chloroethylvinyl ether	0.13	<10		19.49		
Chloroform	0.05	<10	٠.	13.01		
Chloromethane	0.08	<10		- 1.95		
Dibromochloromethane	0.09	<10	l	18.68	1.	
1,2-Dichlorobenzene	0.15	<10		60.1		
1,3-Dichlorobenzene	0.32	<10		42.9		
1,4-Dichlorobenzene	0.24	<10		37.3		
Dichlorodifluoromethane	1.81	<10		3.54		
1,1-Dichloroethane	0.07	<10	1	11.67		
1,2-Dichloroethane	0.03	<0.1	1	13.55		
1,1-Dichloroethene	0.13	<10		10.31		
trans-1,2-Dichloroethene	0.10	<10	1	12.35		
1,2-Dichloropropane	0.08	<10		17.19		
cis-1,3-Dichloropropene	0.20	<10	1	18.68	<u> </u>	
trans-1,3-Dichloropropene	0.10	<10		17.24		
Methylene chloride	0.25	<4.0	Ī .	7.50		
1,1,2,2-Tetrachloroethane	1.0.03	<10	i	23.47		
Tetrachloroethene	0.03	<4.0	1	23.47		
1,1,1-Trichloroethane	0.03	<10		14.76		
1,1,2-Trichloroethane	0.02	<10	!	18.68		
Trichloroethene	10.12	<1.0		17.91		
Trichlorofluoromethane	0.01	<10	•	8.58		
Vinyl chloride	0.18	<10		3.54		
_	1	1	•			
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

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ES Job No.	56528	Lab Sample No	1-66-1126
Client	U.S. Air Force	Field Sample No.	1-MW-1, GW-1_ES
Project	PJKS (Denver)	Date Collected	1/14/86
Client No.	·	Date Received	1/15/86
Laboratory	Supervisor Approval:	Date Analyzed	1/29/86
John Sample Mat	ny R. adamson	QC Report No	56528-10
<u>/x</u> /	Water (ug/L)	Dilution Factor	
/_/	Soil (ug/g) (ug/Kg)	*Moisture	
/ /	Other		

Compound		Concentration			Retention Time	
-	Det Lim	Column 1	Column 2	Column 1	Column 2	Ì
Benzene	0.2	<0.7	•	2.26	•	
Chlorobenzene	0.2	<10	:	16.46	!	
1,2-Dichlorobenzene	0.4	<10	<u>:</u>	27.93		
1,3-Dichlorobenzene	0.4	<10	1	26.40	1	
1,4-Dichlorobenzene	0.3	<10	<u> </u>	22.51		·
Ethylbenzene	0.2	<10	}	- 7.18	i	
Toluene	0.2	<10	<u>;</u>	5.47	1	
methyl ethyl betone.	1.1	105	/33	1.22	/3.3	
			!			
	<u> </u>	<u> </u>	<u> </u>			
	1	1	i	1	1	

^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

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ES Job No.	56528	Lab Sample No.	1-86-1127
Client	U.S. Air Force	Field Sample No.	1-MW-2, GW-1 ES
Project	PJKS (Denver)	Date Collected	1/14/86
Client No.		Date Received	1/15/86
Laboratory	Supervisor Approval:	Date Analyzed	1/29/86
Sample Mati	R adamson	QC Report No.	56528-10
<u>/x</u> / v	Nater (ug/L)	Dilution Factor _	
/ :	Soil (ug/g) (ug/Kg)	*Moisture	
//	Other		

Compound	c	Concentration		Retention Time		Notes
	Det Lim	Column 1	Column 2	Column	Column 2	
Benzene	0.2	<0.7		2.26		,
Chlorobenzene	0.2	<10		16.46	İ	
1,2-Dichlorobenzene	0.4	<10		27.93		
1,3-Dichlorobenzene	0.4	<10		26.40		
1,4-Dichlorobenzene	0.3	<10		22.51		
Ethylbenzene	0.2	<10		- 7.18		
Toluene	0.2	<10	77	5.47	•	
methyl ethyl betone	1.1	<10	. •	دد,ر	<u> </u>	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No
Client U.S. Air Force	Field Sample No. 2-MW-3 (-W-1 ES
Project PJKS (Denver)	Date Collected 1/15/66
Client No.	Date Received 1/16/86
Laboratory Supervisor Approval:	Date Analyzed 1/29/56
John R. adamson Sample Matrix	QC Report No. 56528-10
<pre>/X / Water (ug/L)</pre>	Dilution Factor
// Soil (ug/g) (ug/Kg)	*Moisture
/_/ Other	· · · · · · · · · · · · · · · · · · ·

Compound	c	oncentration	Retention Time	1
-	Det Lim	Column 1 Column	2 Column 1 Column 2	
Benzene	0.2	<0.7	2.26	
Chlorobenzene	0.2	<10	16.46	
1,2-Dichlorobenzene	0.4	<10	27.93	
1,3-Dichlorobenzene	0.4	<10	26.40	
1,4-Dichlorobenzene	0.3	<10	22.51	
Ethylbenzene	0.2	<10	7.18	
Toluene	0.2	'<10	5.47	
methyl ethyl ketone	1,1	210	1.22	
		i		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No	1-86-1178
Client U.S. Air Force	Field Sample No.	4-MW-4 GW-1, ES
Project PJKS (Denver)	Date Collected _	
Client No.	Date Received	1/17/86
Laboratory Supervisor Approval:	Date Analyzed	1/29/86
Johnne R. adamson Sample Matrix	QC Report No	56528-10
/X_/ Water (ug/L)	Dilution Factor	
/_/ Soil (ug/g) (ug/Kg)	*Moisture	
/_/ Other		

Compound	C	Concentration			Retention Time	
- -	Det Lim	Column 1 Colum	n 2 Colu	mn 1/0	column 2	
Benzene	0.2	<0.7	2.	26		
Chlorobenzene	0.2	<10	16.	46		·····
1,2-Dichlorobenzene	0.4	<10	27.	93		
1,3-Dichlorobenzene	0.4	<10	26.	40		
1,4-Dichlorobenzene	0.3	<10	22.	51		
Ethylbenzene	0.2	<10	-7.	18	1	
Toluene	0.2	<10	5.	47	<u>.</u> .	_
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. 1-86-1179
Client U.S. Air Force	Field Sample No. 4-MW-5, GW-1 E
Project PJKS (Denver)	Date Collected 1/16/86
Client No.	Date Received 1/17/86
Laboratory Supervisor Approval:	Date Analyzed 1/29/86
Johnny R. Colamour Sample Matrix	QC Report No. <u> </u>
/X / Water (ug/L)	Dilution Factor
/_/ Soil (ug/g) (ug/Kg)	*Moisture
/_/ Other	

Compound	c	Concentration			ion Time	Notes
	Det Lim	Column 1	Column 2	Column	1 Column 2	
Benzene	0.2	<0.7		2.26		
Chlorobenzene	0.2	<10	<u> </u>	16.46		<u> </u>
1,2-Dichlorobenzene	0.4	<10	,	27.93		
1,3-Dichlorobenzene	0.4	<10	{	26.40		
1,4-Dichlorobenzene	0.3	<10	!	22.51		<u> </u>
Ethylbenzene	0.2	<10	1	- 7.18		
Toluene	0.2	<10	<u> </u>	5.47		
		·	1 .	<u> </u>		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. 56528	Lab Sample No. 1-86-1133
Client U.S. Air Force	Field Sample No. 4-MW-6, 6W-2, ES
Project PJKS (Denver)	Date Collected //5/86
Client No.	Date Received 1/16/86
Laboratory Supervisor Approval:	Date Analyzed
Johnne Ro adamson Sample Matrix	QC Report No. 56528-10
/X_/ Water (ug/L)	Dilution Factor
/_/ Soil (ug/g) (ug/Kg)	*Moisture
/ / Other	

Compound		concentration	Retention	Time	Notes
	Det Lim	Column 1 Column	1 2 Column 1 C	Column 2	i
Benzen e	0.2	<0.7	2.26		
Chlorobenzene	0.2	<10	16.46		
1,2-Dichlorobenzene	0.4	<10	27.93		
1,3-Dichlorobenzene	0.4	<10	26.40	· · · · · · · · · · · · · · · · · · ·	
1,4-Dichlorobenzene	0.3	<10	22.51		
Ethylbenzene	0.2	<10	- 7.18		
Toluene	0.2	<10	5.47		
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No	1-86-1132
Client	U.S. Air Force	Field Sample No.	4-MW-6, GW-1 ES
Project	PJKS (Denver)	Date Collected	1/15/86
Client No.		Date Received	1/16/86
Laboratory	Supervisor Approval:	Date Analyzed	1/29/86
Sample Mat	R adamse	QC Report No.	56528-10
<u>/x</u> _/	Water (ug/L)	Dilution Factor _	
<u>/_</u> /	Soil (ug/g) (ug/Kg)	*Moisture	
/_/	Other		
G==	nound Conce	untration Pate	ntion Time Notes

Compound	c	Concentration		Retention Time	
	Det Lim	Column 1 Column	2 Column 1	Column 2	! !
Benzene	0.2	<0.7	2.26	i	
Chlorobenzene	0.2	<10	16.46		
1,2-Dichlorobenzene	0.4	<10	27.93	<u>!</u>	
1,3-Dichlorobenzene	0.4	<10	26.40	!	! :
1,4-Dichlorobenzene	0.3	<10	22.51		ļ
Ethylbenzene	0.2	<10	- 7.18	<u>:</u>	ļ
Toluene	0.2	<10	5.47		<u> </u>
					<u> </u>
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

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ES Job No.	56528	Lab Sample No	1-86-1177
Client	U.S. Air Force	Field Sample No.	2-MW-7, GW-1, ES
Project	PJKS (Denver)	Date Collected	1/16/86
Client No.		Date Received	1/17/86
Laboratory	Supervisor Approval:	Date Analyzed	1/29/86
Gample Mat	ng R. adamson	QC Report No.	56528-10
<u>/x</u> / '	Water (ug/L)	Dilution Factor _	
/_/	Soil (ug/g) (ug/Kg)	*Moisture	<u></u> %
/	Other		

Compound	c	oncentration	Retention	Time Notes
-	Det Lim	Column 1 Column	2 Column 1 Co	olumn 2
Benzene	0.2	<0.7	2.26	
Chlorobenzene	0.2	<10	16.46	
1,2-Dichlorobenzene	0.4	<10	27.93	
1,3-Dichlorobenzene	0.4	<10	26.40	<u> </u>
1,4-Dichlorobenzene	0.3	<10	22.51	<u> </u>
Ethylbenzene	0.2	<10	7.18	<u> </u>
Toluene	0.2	<10 ¹	5.47	
		:		
methyl athyl ketone	1 1.1	<10	1.22	
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No. <u>56528</u>	Lab Sample No. 1-86-1131
Client U.S. Air Force	Field Sample No. 10-MW-8 GW-1 ES
Project PJKS (Denver)	Date Collected 1/15/86
Client No.	Date Received 1/16/86
Laboratory Supervisor Approval:	Date Analyzed 1/29/86
John R adams Sample Matrix	QC Report No. 56528-10
/X / Water (ug/L)	Dilution Factor
/_/ Soil (ug/g) (ug/Kg)	*Moisture
/ / Other	

	223	Engineering-Science		AL RESULTS SUMMARY		of
10.0	riu:		-	able Aromatics A Method 602	Repor	t
.40		ES Job No. 56528		Lab Sample	No. 1-86-	- 1131
		Client U.S. Air Force	:		e No. 10-WW-	
		Project PJKS (Denver)		Date Collec	ted 1/15/80	6
Į į	H-2	Client No.		Date Receiv	ed 1/16/8	6
S		Laboratory Supervisor Appr	oval:	Date Analyz	ed 1/29/8	6
		Johnny R. ada	<u>~~~</u>	∠ QC Report N	o. <u>56528</u> -	- 10
3	C-L	Sample Matrix()				
2	174	/X / Water (ug/L)			ctor	
		<u>/</u> / Soil (ug/g) (ug/	Kg)	*Moisture		8
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į.			1 -			
ij	_	Compound	Det Lim	oncentration Column 2	Retention Ti	
	8	:	1			
	NO.	Benzene	0.2	<0.7	2.26	
22	۵	Chlorobenzene	0.2	<10	16.46	
		1,2-Dichlorobenzene	0.4	<10	27.93	
	X3	1,3-Dichlorobenzene	0.4	<10	26.40	!
K		1,4-Dichlorobenzene	0.3	<10	22.51	
3		Ethylbenzene	0.2	<10	7.18	
Į	P .	Toluene	0.2	<10	5.47	
1 2.3	₹ ·					
2.2	54		<u> </u>	;		
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F	8		<u> </u>			
	_	<u>L</u>	1	<u> </u>		
1577/25/55		* If % moisture is report	ed, resul	ts are presented o	n a dry-weight	basis.
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3.40	\$					
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2.23						

^{*} If % moisture is reported, results are presented on a dry-weight basis.

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

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ES Job No.	56528	Lab Sample No	1-86-1180
Client	U.S. Air Force	Field Sample No.	1-MW-2, GW-2 ES
Project	PJKS (Denver)	Date Collected	1/16/86
Client No.		Date Received	1/17/86
Laboratory	Supervisor Approval:	Date Analyzed	1/30/86
Johnn Sample Mat	R. adamson	QC Report No	5658-10
<u>/x</u> _/	Water (ug/L)	Dilution Factor _	
/	Soil (ug/g) (ug/Kg)	*Moisture	
, ,	Other		

Compound		concentration	Retention Time	Notes
	Det Lim	Column 1 Column	2 Column 1 Column	2
Benzene	0.2	<0.7	2.26	
Chlorobenzene	0.2	<10	16.46	<u> </u>
1,2-Dichlorobenzene	0.4	<10	27.93	
1,3-Dichlorobenzene	0.4	<10	26.40	1
1,4-Dichlorobenzene	0.3	<10	22.51	
Ethylbenzen e	0.2	<10	-7.18	
Toluene	0.2	<10 [‡]	5.47	<u> </u>
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

MANAGEMENT PROGRAM INTERNATION PROGRAM PROGRAM

CANADA CONSTRUCTOR SPECIAL CONTRACTOR

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ES Job No. 56528	Lab Sample No
Client U.S. Air Force	Field Sample No. Lield flank
Project PJKS (Denver)	Date Collected ///6/86
Client No.	Date Received 1/17/86
Laboratory Supervisor Approva	1: Date Analyzed 1/30/86
John R. Oda Sample Matrix:	0C Report No. 56528-10
/X / Water (ug/L)	Dilution Factor
/_/ Soil (ug/g) (ug/Kg)	*Moisture
/_/ Other	

Compound	Concentration		Retentio	n Time	Notes
	Det Lim	Column 1 Colum	n 2 Column 1	Column 2	
Benzene	0.2	<0.7	2.26		
Chlorobenzene	0.2	<10	16.46		
1,2-Dichlorobenzene	0.4	<10	27.93		
1,3-Dichlorobenzene	0.4	<10	26.40		<u>!</u>
1,4-Dichlorobenzene	0.3	<10	22.51		
Ethylbenzene	0.2	<10	7.18		1
Toluene	0.2	<10	5.47		<u> </u>
		<u> </u>	<u> i</u>		<u> </u>
		<u></u>		<u></u>	<u> </u>
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

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ES Job No.	56528	Lab Sample No.	1-86-1182
Client	U.S. Air Force	Field Sample No.	Trip blank
Project	PJKS (Denver)	Date Collected	1-16-86
Client No.		Date Received	1/17/86
Laboratory	Supervisor Approval:	Date Analyzed	1/30/86
Sample Matr	\wedge	QC Report No.	56528-10
<u>/x</u> _/ w	ater (ug/L)	Dilution Factor _	
<u>/_</u> / s	Soil (ug/g) (ug/Kg)	*Moisture	
/ 0	ther		

Compound	c	oncentration	Retention Time	Notes
	Det Lim	Column 1 Column	2 Column 1 Column 2	[]
Benzene	0.2	<0.7 '	2.26	
Chlorobenzene	0.2	<10	16.46	
1,2-Dichlorobenzene	0.4	<10	27.93	
1,3-Dichlorobenzene	0.4	<10	26.40	!
1,4-Dichlorobenzene	0.3	<10	22.51	<u> </u>
Ethylbenzene	0.2	<10	7.18	!
Toluene	0.2	<10	5.47 -	<u> </u>
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^{*} If % moisture is reported, results are presented on a dry-weight basis.

IT Results for 601 and 602 Methods Dated 4/15/86

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ANALYTICAL SERVICES

17605 Fabrica Way • Cerritos. California 90701 • 213-921-9831 / 714-523-9200

2 d Resample

CERTIFICATE OF ANALYSIS

Prepared For:

Engineering Science

1100 Stout St., Suite 1100

Denver, CO 80204

Attn: Lisa Korner

Date:

May 21, 1986

MAY 27 1985

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Date Received

April 12, 1986

PO Number

56528

Job Number

36528/rjc

Six (6) soil samples:

Sample Number	<u>Date</u>	<u>Time</u>
PJKS, 1-SW-2, IT	4-11-86	9:30
PJKS, 1-MW-1, GW-2, IT	4-11-86	10:30
PJKS, 10-MW-8, GW-2, IT	4-11-86	12:00
PJKS, 5-MW-6, GW-3, IT	4-11-86	2:15
PJKS, 5-MW-6, GW-4, IT	4-11-86	2:15
PJKS, 4-MW-4, GW-2, IT	4-11-86	3:15

The samples were analyzed for Purgeable Halocarbons using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a Hall electrolytic conductivity detector. The samples were prepared according to EPA Method 8010. 64

Second column confirmations not done due to insufficient sample. -

The samples were also analyzed for Aromatic Volatile organic compounds using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a photoionization detector. The samples were prepared according to EPA Method 8020. The results are listed on the following summary sheets.

In addition, sample 1-SW-2 was analyzed for Methyl Ethyl Ketone using a Hewlett Packard 5890 gas chromatograph equipped with a photoionization detector. The result is as follows:

Methyl Ethyl Ketone (ug/l)

1-SW-2

TR<1

I certify that this report truly represents the finding of work performed by the or under, my direct supervision

Robert I. Sundberg Groupleader

Revenued and Approved

Richard L. Merrell Laboratory Director

Accredite 2 by the Amenican Industrial Hygiene Association

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No56428	Lab Sample No	36528-10
Client	Field Sample No.	PJKS, 1-MW-1, GW-2, IT
Project PJKS Air Force, Denver, CO	Date Collected	4-11-86
Client No.	Date Received	4-12-86
Laboratory Supervisor Approval:	Date Analyzed	4-15-86
	QC Report No.	8010-21
Sample Matrix:		
<u>/X</u> / Water (ug/L)	Dilution Factor _	N/A
/ Soil	*Moisture	%
Other		
Spike Source		

	Concentration			Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1	ND<1				
Bis(2-Chloroethoxy)methane	1	ND<1				
Bis(2-chlorojsopropyl)ether	1	ND<1				
Bromobenzene	1	ND<1		3	<u> </u>	
Bromodichloromethane	1	ND<1				
Bromoform	1	ND<1				
Bromomethane	1	ND<1				
Carbon tetrachloride	1	ND<1				
Chloroacetaldehyde	1	ND<1				
Chloral	_ 1	ND<1				
Chlorobenzene	1	ND<1				
Chloroethane	_ 1	ND<1				
Chloroform	1	ND<1				
1-Chlorohexane	_1	ND<1				
2-Chloroethyl vinyl ether	1	ND<1				
Chloromethane	1	ND<1				
Chloromethyl methyl ether	1	ND<1				
Chlorotoluene	1	ND<1		***		
Dibromochloromethane	1	ND<1				

Continued

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 1-MW-1, GW-2, IT

	Concentration			Retenti	on Time	
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Dibromomethane	1_1	ND<1				
1,2-Dichlorobenzene	1_1	ND<1				_
1,3-Dichlorobenzene	1	ND<1				
1,4-Dichlorobenzene	1	ND<1				
Dichlorodifluoromethane	1	ND<1				
1,1-Dichloroethane	1_1	ND<1				
1,2-Dichloroethane	1	ND<1				
1,1-Dichloroethylene	1	ND<1	" 			
trans-1,2-dichloroethylene	1	29		11.3		
Dichloromethane	1	ND<1				
1,2-Dichloropropane	1	ND<1				
1,3-Dichloropropylene	1	ND<1				
1,1,2,2-Tetrachloroethane	1. 1	ND<1				
1,1,1,2-Tetrachloroethane	1 .	ND<1		•:		
Tetrachloroethylene	1_1	ND<1				
1,1,1-Trichloroethane	1	36		13.8		
1,1,2-Trichloroethane	1	ND<1				
Trichloroethylene	1	89		16.1		
Trichlorofluoromethane	1	ND<1				
Trichloropropane	1	ND<1				
Vinyl chloride	1	ND<1		,		

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.



ANALYTICAL **SERVICES**



17605 Fabrica Way • Cerritos. California 90701 • 213-921-9831 / 714-523-9200

CERTIFICATE OF ANALYSIS

Prepared For: Engineering Science

1100 Stout St., Suite 1100

Denver, CO 80204

Attn: Lisa Korner

April 29, 1986

Date Received

MARKET COUNTY OF STANSON STANSON RESISTANT REPROSES INCLUDED

April 11, 1986

P.O. ...mber

56528

Job Number

36516/rjc

Three (3) soil samples:

Sample Number	Date	<u>Time</u>	
PJKS, 2-MW-3, IT	4/10/86	2:25	
PJKS, 1-MW-2, IT	4/10/86	3:45	
PJKS, 5-MW-5, IT	4/10/86	5:00	

The samples were analyzed for purgeable halocarbons using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a Hall electrolytic conductivity detector. The samples were prepared according to EPA Method 601.

The samples were also analyzed for Aromatic volatile organic compounds using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a photoionization detector. The samples were prepared according to EPA Method 602. The results are listed on the following summary sheets.

A Quality Control Spike could not be performed due to insufficient sample amount.

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Robert I. Sundberg

Groupleader

Retinated and Approved

Ruchard & Minut Richard L. Merrell

Laboratory Director

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No56528	Lab Sample No. <u>3</u>	6516-6	
Client	Field Sample No. P	JKS, 1-MW-2, IT	
Project PJKS Airforce Denver CO.	Date Collected <u>4</u>	-10-86	
Client No.	Date Received4	-11-86	
Laboratory Supervisor Approval:	Date Analyzed <u>4</u>	-15-86	
	QC Report No.		_
Sample Matrix:			
<u>/X</u> / Water (ug/L)	Dilution Factor	N/A	_
/ Soil	*Moisture	·	%
/_/ Other			_
Spike Source			_

	С	oncentrati	on	Retenti	on Time	4
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1.0	ND<1:0				
Bis(2-Chloroethoxy)methane	1.0	ND<1.0				
Bis(2-chloroisopropyl)ether	1.0	ND<1.0				
Bromobenzene	1.0	ND<1.0				
Bromodichloromethane	1.0	ND<1.0				<u> </u>
Bromoform	1.0	ND<1.0				<u> </u>
Bromomethane	1.0	ND<1.0				
Carbon tetrachloride	1.0	ND<1.0				
Chloroacetaldehyde	1.0	ND<1.0				
Chloral	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0				
Chloroethane	1.0	ND<1.0				
Chloroform	1.0	ND<1.0				
1-Chlorohexane	1.0	ND<1.0				
2-Chloroethyl vinyl ether	1.0	ND<1.0				
Chloromethane	1.0	ND<1.0			***	<u> </u>
Chloromethyl methyl ether	1.0	ND<1.0				
Chlorotoluene	1.0	ND<1.0				
Dibromochloromethane	1.0	ND<1.0				<u> </u>
Continued		L-345				
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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 1-MW-2, IT

	Concentration			Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Dibromomethane	1.0	ND<1.0				
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Dichlorodifluoromethane	1.0	ND<1.0				
1,1-Dichloroethane	1.0	1.5		10.8		
1,2-Dichloroethane	1.0	ND<1.0				
1,1-Dichloroethylene	1.0	ND<1.0				
trans-1,2-dichloroethylene	1.0	77		11.4		· · · · · · · · · · · · · · · · · · ·
Dichloromethane	1.0	ND<1.0				
1,2-Dichloropropane	1.0	ND<1.0				
1,3-Dichloropropylene	1.0	ND<1.0				
1,1,2,2-Tetrachloroethane	1.0	ND<1.0				
1,1,1,2-Tetrachloroethane	1.0	ND<1.0				
Tetrachloroethylene	1.0	ND<1.0				
1,1,1-Trichloroethane	1.0	10		13.9		
1,1,2-Trichloroethane	1.0	ND<1.0				
Trichloroethylene	1.0	62		16.8		
Trichlorofluoromethane	1.0	ND<1.0				
Trichloropropane	1.0	ND<1.0				
Vinyl chloride	1.0	ND<1.0				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No56528	Lab Sample No. <u>36516-9</u>	
Client	Field Sample No. PJKS, 2-MW-3, IT	
Project PJKS Airforce Denver CO.	Date Collected 4-10-86	
Client No.	Date Received 4-11-86	
Laboratory Supervisor Approval:	Date Analyzed 4-15-86	
	QC Report No.	
Sample Matrix:		
/X_/ Water (ug/L)	Dilution Factor 1:50	
/ Soil	*Moisture	` %
/ Other		
Spike Source		

	Concentration			Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1.0	ND<1.0				
Bis(2-Chloroethoxy)methane	1.0	ND<1.0				
Bis(2-chloroisopropyl)ether	1.0	ND<1.0				
Bromobenzene	1.0	ND<1.0				<u> </u>
Bromodichloromethane	1.0	ND<1.0				
Bromoform	1.0	150		20.3		
Bromomethane	1.0	ND<1.0				
Carbon tetrachloride	1.0	ND<1.0				<u> </u>
Chloroacetaldehyde	1.0	ND<1.0				<u> </u>
Chloral	1.0	ND<1.0				<u> </u>
Chlorobenzene	1.0	ND<1.0				
Chloroethane	1.0	ND<1.0				<u> </u>
Chloroform	1.0	ND<1.0				<u> </u>
1-Chlorohexane	1.0	ND<1.0				
2-Chloroethyl vinyl ether	1.0	ND<1.0				
Chloromethane	1.0	ND<1.0				
Chloromethyl methyl ether	1.0	ND<1.0				
Chlorotoluene	1.0	ND<1.0				
Dibromochloromethane	1.0	ND<1.0				

Continued

Engineering Science Page 7

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 2-MW-3, IT

	Co	Concentration			Retention Time		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes	
Dibromomethane	1.0	ND<1.0					
1,2-Dichlorobenzene	1.0	ND<1.0				· · · · ·	
1,3-Dichlorobenzene	1.0	ND<1.0					
1,4-Dichlorobenzene	1.0	ND<1.0					
Dichlorodifluoromethane	1.0	ND<1.0					
1,1-Dichloroethane	1.0	ND<1.0					
1,2-Dichloroethane	1.0	230		12.4			
1,1-Dichloroethylene	1.0	ND<1.0					
trans-1,2-dichloroethylene	1.0	500		11.4			
Dichloromethane	1.0	ND<1.0					
1,2-Dichloropropane	1.0	ND<1.0				·	
1,3-Dichloropropylene	1.0	ND<1.0				<u>. </u>	
1,1,2,2-Tetrachloroethane	1.0	ND<1.0					
1,1,1,2-Tetrachloroethane	1.0	ND<1.0					
Tetrachloroethylene	1.0	ND<1.0					
1,1,1-Trichloroethane	1.0	430		13.9			
1,1,2-Trichloroethane	1.0	ND<1.0					
Trichloroethylene	1.0	1200		16.8			
Trichlorofluoromethane	1.0	ND<1.0					
Trichloropropane	1.0	ND<1.0					
Vinyl chloride	1.0	ND<1.0					

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

Client Field Sample No. PJKS, 4-MW-4, GV Project PJKS Air Force, Denver, CO Client No. Date Received 4-12-86 Laboratory Supervisor Approval: Date Analyzed 4-15-86	
Client No Date Received 4-12-86	-2, IT
QC Report No8010-21	
Sample Matrix:	
/X / Water (ug/L) Dilution Factor N/A	
/ Soil *Moisture	<u>_</u>
/_/ Other	
Spike Source	

-	С	oncentrati	on	Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Note
Benzyl chloride	1	ND<1				
Bis(2-Chloroethoxy)methane	1	ND<1				
Bis(2-chloroisopropyl)ether	1	ND<1				<u> </u>
Bromobenzene	1	ND<1				
Bromodichloromethane	1	4		14.9	^-2	<u> </u>
Bromoform	1	ND<1		· ·		<u> </u>
Bromomethane	1	ND<1				<u> </u>
Carbon tetrachloride	1	ND<1				<u> </u>
Chloroacetaldehyde	1	ND<1				
Chloral	1	ND<1				
Chlorobenzene	1	ND<1				
Chloroethane	1	ND<1				
Chloroform	1	ND<1				
1-Chlorohexane	1	ND<1				<u> </u>
2-Chloroethyl vinyl ether	_1	ND<1				
Chloromethane	1	ND<1				
Chloromethyl methyl ether	1	ND<1				<u> </u>
Chlorotoluene	1	ND<1				
Dibromochloromethane	1	ND<1				
Continued		7 2/0				
		L-349				

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 4-MW-4, GW-2, IT

<u> </u>	Co	ncentratio	n	Retenti	on Time	
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Dibromomethane	1:	ND<1				
1,2-Dichlorobenzene	1	ND<1				
1,3-Dichlorobenzene	1	ND<1				
1,4-Dichlorobenzene	1	ND<1				
<u>Dichlorodifluoromethane</u>	1	ND<1				
1,1-Dichloroethane	1	7		10.8		
1,2-Dichloroethane	1	ND<1				
1,1-Dichloroethylene	1	ND<1	·			
trans-1,2-dichloroethylene	1	180		11.3		
Dichloromethane	1	ND<1				
1,2-Dichloropropane	1	ND<1				
1,3-Dichloropropylene	1	ND<1				
1,1,2,2-Tetrachloroethane	1	ND<1				
1,1,1,2-Tetrachloroethane	1	ND<1				
Tetrachloroethylene	1	ND<1		•	,	
1,1,1-Trichloroethane	1	24		13.8		
1,1,2-Trichloroethane	1	ND<1				
Trichloroethylene	1	310		16.7		
Trich lorofluoromethane	1	ND<1				
Trichloropropane	1	ND<1				
Vinyl chloride	1_1	ND<1				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No56528	Lab Sample No. <u>36516-8</u>	
Client	Field Sample No. PJKS, 5-MW-5, IT	
Project PJKS Airforce Denver CO.	Date Collected 4-10-86	
Client No.	Date Received 4-11-86	
Laboratory Supervisor Approval:	Date Analyzed 4-15-86	_
	QC Report No.	
Sample Matrix:		
/X_/ Water (ug/L)	Dilution Factor N/A	
/ Soil	*Moisture	%
// Other		
Spike Source	·	

	Concentration			Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1.0	ND<1.0				<u> </u>
Bis(2-Chloroethoxy)methane	1.0	ND<1.0				
Bis(2-chloroisopropyl)ether	1.0	ND<1.0				<u> </u>
Bromobenzene	1.0	ND<1.0				
Bromodichloromethane	1.0	ND<1.0				
Bromoform	1.0	ND<1.0				
Bromomethane	1.0	ND<1.0				
Carbon tetrachloride	1.0	ND<1.0				
Chloroacetaldehyde	1.0	ND<1.0				
Chloral	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0				
Chloroethane	1.0	ND<1.0				
Chloroform	1.0	ND<1.0				
1-Chlorohexane	1.0	ND<1.0				
2-Chloroethyl vinyl ether	1.0	ND<1.0				
Chloromethane	1.0	ND<1.0		·		
Chloromethyl methyl ether	1.0	ND<1.0				
Chlorotoluene	1.0	ND<1.0				
Dibromochloromethane	1.0	ND<1.0				

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 5-MW-5, IT

	Co	Concentration			Retention Time		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes	
Dibromomethane	1.0	ND<1.0					
1,2-Dichlorobenzene	1.0	ND<1.0					
1,3-Dichlorobenzene	1.0	ND<1.0					
1,4-Dichlorobenzene	1.0	ND<1.0					
Dichlorodifluoromethane	1.0	ND<1.0					
1,1-Dichloroethane	1.0	ND<1.0					
1,2-Dichloroethane	1.0	ND<1.0					
1,1-Dichloroethylene	1.0	ND<1.0					
trans-1,2-dichloroethylene	1.0	ND<1.0					
Dichloromethane	1.0	ND<1.0					
1,2-Dichloropropane	1.0	ND<1.0					
1,3-Dichloropropylene	1.0	ND<1.0					
1,1,2,2-Tetrachloroethane	1.0	ND<1.0					
1,1,1,2-Tetrachloroethane	1.0	ND<1.0					
Tetrachloroethylene	1.0	ND<1.0					
1,1,1-Trichloroethane	1.0	ND<1.0					
1,1,2-Trichloroethane	1.0	ND<1.0					
Trichloroethylene	1.0	12		16.8			
Trichlorofluoromethane	1.0	ND<1.0					
Trichloropropane	1.0	ND<1.0					
Vinyl chloride	1.0	ND<1.0					

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No. <u>56428</u>	Lab Sample No	36528-13
Client	Field Sample No.	PJKS, 5-MW-6, GW-3, IT
Project PJKS Air Force, Denver, CO	Date Collected _	4-11-86
Client No.	Date Received _	4-12-86
Laboratory Supervisor Approval:	Date Analyzed	4-15-86
	QC Report No.	8010-21
Sample Matrix:	-	•
/X_/ Water (ug/L)	Dilution Factor	N/A
/ Soil	*Moisture	
/_/ Other	:	
Spike Source		

-	C	oncentrati	on	Retenti	on Time	
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1	ND<1				
Bis(2-Chloroethoxy)methane	_1	ND<1				
Bis(2-chloroisopropyl)ether	1_1_	ND<1				
Bromobenzene	1	ND<1	*	:		
Bromodichloromethane	1	ND<1				
Bromoform	1	ND<1				
Bromomethane	1	ND<1			,	
Carbon tetrachloride	1	ND<1				
Chloroacetaldehyde	1	ND<1				
Chloral	1	ND<1				
Chlorobenzene	1	ND<1				
Chloroethane	1	ND<1				
Chloroform	1	ND<1				
1-Chlorohexane	1	ND<1				
2-Chloroethyl vinyl ether	1	ND<1				7
Chloromethane	1	ND<1				
Chloromethyl methyl ether	1	ND<1				
Chlorotoluene	1	ND<1				
Dibromochloromethane	1	ND<1				

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 5-MW-6, GW-3, IT

	Concentration			Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
<u>Dibromomethane</u>	1	ND<1				
1,2-Dichlorobenzene	1 :	ND<1				
1,3-Dichlorobenzene	1 .	ND<1				
1,4-Dichlorobenzene	1	ND<1				
Dichlorodifluoromethane	i	ND<1				
1,1-Dichloroethane	1	2		10.8		
1,2-Dichloroethane	1	ND<1	/·			
1,1-Dichloroethylene	1	ND<1				
trans-1,2-dichloroethylene	1	530		11.3		
<u>Dichloromethane</u>	1	ND<1				
1,2-Dichloropropane	1	ND<1				
1,3-Dichloropropylene	1	ND<1				
1,1,2,2-Tetrachloroethane	1	ND<1				
1,1,1,2-Tetrachloroethane	1	ND<1		2		
Tetrachloroethylene	1	ND<1				
1,1,1-Trichloroethane	1	ND<1				
1,1,2-Trichloroethane	1	ND<1				
Trichloroethylene	1	41		16.8		
Trichlorofluoromethane	1	ND<1				
Trichloropropane	1	ND<1				
Vinyl chloride	1 _	ND<1				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No56428	Lab Sample No.	36528-14 Duplicate
Client	Field Sample No	. PJKS, 5-MW-6, GW-3, IT
Project PJKS Air Force, Denver, CO	Date Collected	4-11-86
Client No.	Date Received	4-12-86
Laboratory Supervisor Approval:	Date Analyzed	4-15-86
	QC Report No	8010-21
Sample Matrix:		
/X / Water (ug/L)	Dilution Factor	N/A
/ Soil	*Moisture	
/ Other		
Spike Source	······································	

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	<u> </u>	Oncent at 1	<u> </u>	Ne celle l	OI, I IME	1
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1	ND<1				<u> </u>
Bis(2-Chloroethoxy)methane	1	ND<1				1
Bis(2-chloroisopropyl)ether	11	ND<1				
Bromobenzene	1	ND<1				
Bromodichloromethane	1	ND<1			1.2.	
Bromoform	1	ND<1		3-7		
Bromomethane	1	ND<1				
Carbon tetrachloride	1	ND<1				<u></u>
Chloroacetaldehyde	1	ND<1				
Chloral	1	ND<1				
Chlorobenzene	1	ND<1				
Chloroethane	1	ND<1				
Chloroform	1	ND<1				
1-Chlorohexane	1	ND<1				
2-Chloroethyl vinyl ether	1	ND<1	-,			
Chloromethane	1	ND<1				
Chloromethyl methyl ether	1	ND<1				
Chlorotoluene	1	ND<1				
Dibromochloromethane	1	NÖ<1				

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 5-MW-6, GW-3, IT Duplicate

<u> </u>	Co	ncentratio	n	Retenti	on Time	
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Dibromomethane	1 /	ND<1				
1,2-Dichlorobenzene	1	ND<1				
1,3-Dichlorobenzene	11	ND<1				
1,4-Dichlorobenzene	1	ND<1				
Dichlorodifluoromethane	1	ND<1				
1,1-Dichloroethane	1	2		10.8		
1,2-Dichloroethane	1 7	ND<1				
1,1-Dichloroethylene	1	ND<1				
trans-1,2-dichloroethylene	11	460		11.3		
Dichloromethane	1	ND<1				
1,2-Dichloropropane	1	ND<1				
1,3-Dichloropropylene	1_1	ND<1				
1,1,2,2-Tetrachloroethane	1	ND<1	·	:		
1,1,1,2-Tetrachloroethane	11	ND<1				
Tetrachloroethylene	1	ND<1				
1,1,1-Trichloroethane	1	2		13.9	'	
1,1,2-Trichloroethane	1	ND<1				
Trichloroethylene	1	27		16.8		
Trichlorofluoromethane	1	ND<1				
Trichloropropane	1	ND<1				
Vinyl chloride	1	ND<1				·

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No. <u>56428</u>	Lab Sample No	36528-15
Client	Field Sample No.	PJKS, 5-MW-6, GW-4, IT
Project PJKS Air Force, Denver, CO	Date Collected _	4-11-86
Client No.	Date Received _	4-12-86
Laboratory Supervisor Approval:	Date Analyzed	4-15-86
	QC Report No.	8010-21
Sample Matrix:		
/X_/ Water (ug/L)	Dilution Factor	N/A
/ Soil	*Moisture	
/_/ Other		
Spike Source		

	Concentration			Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1	ND<1				
Bis(2-Chloroethoxy)methane	1	ND<1				
Bis(2-chloroisopropyl)ether	11	ND<1				
Bromobenzene	1	ND<1				
Bromodichloromethane	1	ND<1			*-2	
Bromoform	_1_	ND<1				
Bromomethane	11	ND<1			'	
Carbon tetrachloride	1	ND<1				
Chloroacetaldehyde	1	ND<1				
Chloral	1	ND<1				
Chlorobenzene	11	ND<1				
Chloroethane	1	ND<1				
Chloroform	1	ND<1				
1-Chlorohexane	11	ND<1				
2-Chloroethyl vinyl ether	1	ND<1				
Chloromethane	1	ND<1				
Chloromethyl methyl ether	11	ND<1	~~~			
Chlorotoluene	1	ND<1				
Dibromochloromethane	1_1_	ND<1				

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 5-MW-6, GW-4, IT

	Concentration Retention Time			on Time		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Dibromomethane	1	ND<1				
1,2-Dichlorobenzene	1	ND<1				
1,3-Dichlorobenzene	1	ND<1				
1,4-Dichlorobenzene	1	ND<1				
<u>Dichlorodifluoromethane</u>	1	ND<1				· · · · · · · · · · · · · · · · · · ·
1,1-Dichloroethane	1	3		10.9		
1,2-Dichloroethane	1	ND<1	, '			
1,1-Dichloroethylene	1	ND<1				
trans-1,2-dichloroethylene	1	600		11.3		
<u>Dichloromethane</u>	1	ND<1				
1,2-Bichloropropane	1	ND<1				
1,3-Dichloropropylene	1	ND<1				
1,1,2,2-Tetrachloroethane	1	ND<1				- <u>-</u>
1,1,1,2-Tetrachloroethane	1	ND<1				
Tetrachloroethylene	1	ND<1				
1,1,1-Trichloroethane	1	3		14.0		
1,1,2-Trichloroethane	1	ND<1				
Trichloroethylene	1	36		16.8		
Trichlorofluoromethane	1	ND<1				
Trichloropropane	1	ND<1				· · · · · · · · · · · · · · · · · · ·
Vinyl chloride	1_1	ND<1				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No. <u>56428</u>	Lab Sample No	36528-11
Client		PJKS, 10-MW-8, GW-2, IT
Project PJKS Air Force, Denver, CO	Date Collected _	4-11-86
Client No.	Date Received _	4-12-86
Laboratory Supervisor Approval:	Date Analyzed _	4-15-86
	QC Report No.	8010-21
Sample Matrix:		
/X_/ Water (ug/L)	Dilution Factor	N/A
/ Soil	*Moisture	\$
Spike Source		

	Concentration			Retenti	1	
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1	ND<1				<u> </u>
Bis(2-Chloroethoxy)methane	1	ND<1				
Bis(2-chloroisopropyl)ether	1	ND<1				<u> </u>
Bromobenzene	1	ND<1		: 		
Bromodichloromethane	1	ND<1				
Bromoform	1	ND<1				
Bromomethane	1	ND<1				
Carbon tetrachloride	1	ND<1				
Chloroacetaldehyde	1	ND<1				
Chloral	11	ND<1	~			
Chlorobenzene	11	ND<1				
Chloroethane	1	ND<1				
Chloroform	1	ND<1				
1-Chlorohexane	1	ND<1				
2-Chloroethyl vinyl ether	1	ND<1				
Chloromethane	1	ND<1				
Chloromethyl methyl ether	1	ND<1				
Chlorotoluene	1	ND<1				
Dibromochloromethane	1	ND<1				

Continued

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 10-MW-8, GW-2, IT

	Concentration			Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Dibromomethane	1	ND<1				
1,2-Dichlorobenzene	1	ND<1				
1,3-Dichlorobenzene	11	ND<1				
1,4-Dichlorobenzene	1	ND<1				
Dichlorodifluoromethane	1	ND<1				.,
1,1-Dichloroethane	1	TR<1		10.9		
1,2-Dichloroethane	11	9		12.3		
1,1-Dichloroethylene	1	ND<1				
trans-1,2-dichloroethylene	1	65		13.8		
Dichloromethane	1	ND<1				
1,2-Dichloropropane	1	ND<1				
1,3-Dichloropropylene	1	ND<1				
1,1,2,2-Tetrachloroethane	1	ND<1				
1,1,1,2-Tetrachloroethane	1	ND<1		•:		
Tetrachloroethylene	1	ND<1				
1,1,1-Trichloroethane	1	ND<1		ź	·	
1,1,2-Trichloroethane	1	ND<1		· '		
Trichloroethylene	1	400		16.7		
Trichlorofluoromethane	1	ND<1				
Trichloropropane	1	ND<1				
Vinyl chloride	1	ND<1	<u></u>			

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

Sales Comments

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ANALYTICAL RESULTS SUMMARY Purgeable Aromatics .EPA Method 602

ES Job No56528	Lab Sample No	36516-4	
Client	Field Sample No.	PJKS, 1-MW-2, I	T
Project PJKS Air Force Denver CO.	Date Collected	4-10-86	
Client No.	Date Received	4-11-86	
Laboratory Supervisor Approval:	Date Analyzed	4-15-86	
	QC Report No		
Sample Matrix:			
/X_/ Water (ug/L)	Dilution Factor _	NA NA	
<u>/_</u> / Soil	*Moisture		۶
// Other			
Spike Source			

	Co	Concentration			Retention Time		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes	
Benzene	1.0	ND<1.0				· · · · · · · · · · · · · · · · · · ·	
Chlorobenzene	1.0	ND<1.0					
1,2-Dichlorobenzene	1.0	ND<1.0					
1,3-Dichlorobenzene	1.0	ND<1.0					
1,4-Dichlorobenzene	1.0	ND<1.0					
Ethyl benzene	1.0	ND<1.0					
Toluene	1.0	ND<1.0					
Xylenes (Dimethyl benzene)	1.0	ND<1.0					
							
				<u> </u>			

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

	· ·	
ES Job No. <u>56528</u>	Lab Sample No	36516-6
Client	Field Sample	No. PJKS, 2-MW-3, IT
Project PJKS Air Force Denver CO		ed 4-10-86
Client No.	Date Received	4-11-86
Laboratory Supervisor Approval:		4-15-86
	QC Report No.	
Sample Matrix:		
<u>/X</u> / Water (ug/L)	Dilution Fact	tor NA
/ Soil _	*Moisture	\$
/_/ Other		
Spike Source		
1	Concentration	Retention Time

	Co	ncentratio	n	Retenti	on Time	
Compound	Det Lim		Column 2		Column 2	Notes
Benzene	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0				
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				· · · · · · · · · · · · · · · · · · ·
Ethyl benzene	1.0	ND<1.0				
Toluene	1.0	ND<1.0				
Xylenes (Dimethyl benzene)	1.0	ND<1.0				
			<u> </u>			

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

					IT C	ORPORAT
Engineering Science Page 9						
			LTS SUMMARY	·		
		rgeable A				
		EPA Metho	a 602			
ES Job No. 56528			Lab Sample			
Client	<u> </u>		Field Sampl			IT
Project PJKS Air Force Denve		Date Collected 4-10-86				
Client No.			Date Received 4-11-86			
Laboratory Supervisor Approv	val:		Date Analyz			
Sample Matrix:		'	QC Report N	·		
/X / Water (ug/L)			Dilution Fa	ctor	NA	
/ / Soil			Moisture			
/_/ Other						
Spike Source						
	Co	ncentrati	on	Retenti	on Time	
Compound	Det Lim	Column 1	Column 2		Column 2	Notes
Benzene	1.0	ND<1.0				~~
Chlorobenzene	1.0	ND<1.0				
1,2-Dichlorobenzene	1.0	ND<1.0				<u> </u>
1,3-Dichlorobenzene	1.0	ND<1.0				

	Co	ncentratio	n	Retention Time		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzene	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0				
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Ethyl benzene	1.0	ND<1.0				
Toluene	1.0	ND<1.0				
Xylenes (Dimethyl benzene)	1.0	ND<1.0				
				-		

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.



ANALYTICAL SERVICES



17605 Fabrica Way • Cerritos, California 90701 • 213-921-9831 / 714-523-9200

CERTIFICATE OF ANALYSIS

Prepared For:

Engineering Science

Date:

May 16, 1986

1100 Stout St., Suite 1100

Denver CO 80204

Attn: Lisa Korner

1 of 37

Date Received:

May 25, 1986

PO Number

56423

Job Number

36686/rjc

PARTIAL REPORT

Eleven (11) water samples.

Sample Number	Date	Time
PJKS, 5-MW-4, GW-3, IT	4-23-86	9:00
PJKS, 5-MW-5, GW-3, IT	4-23-86	10:00
PJKS, 4-MW-6, GW-5, IT	4-23-86	11:15
PJKS, 4-MW-6, GW-6, IT	4-23-86	11:15
PJKS, 2-MW-3, GW-3, IT	4-23-86	2:45
PJKS, Field Blank	4-23-86	4:00
PJKS, Trip Blank	4-23-86	- 4:00
PJKS, 1-MW-1, GW-3, IT	4-24-86	9:00 -
PJKS, 1-MW-2, GW-3, IT	4-24-86	10:15
PJKS, 1-SW-2, IT	4-24-86	
PJKS, 10-MW-8, GW-3, IT	4-24-86	1:15

The samples were analyzed for semi-volatile organic contaminants using combined gas chromatography-mass spectrometry according to EPA Methods 625. Results for compounds on the EPA Hazardous Substances List are given on the enclosed summary sheets. No other semivolatile organic compounds were detected

The samples were analyzed for purgeable halocarbons using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a Hall electrolytic conductivity detector. The samples were prepared according to EPA Method 601.

The samples were also analyzed for aromatic volatile organic compounds using a Tekmar liquid sample concentrator and a Varian 6000 gas chromatograph equipped with a photoionization detector. The samples were prepared according to EPA Method 602. The results are listed on the following summary sheets.

Fcertificities report truly represents the finding of

Robert I. Sundbérg

Group Leader

Reviewed and Approved

Richard L. Merrell Laboratory Director

GC/MS ORGANICS ANALYSIS DATAE SHEETNAL TECHNOLOGY CORPORATION: BASE/NEUTRAL AND ACID COMPOUNDS

SAMPLE IDENTIFICATION: 1-SW-1

DATE ANALYZED: 04/30/86

UNITS: UG/L

CAS #	COMPOUND	CONC
222 2	343233	***
88-06-2		2. ND
	4-CHLORO-3-METHYLPHENOL	2. ND
95-57-8		2. ND
	2,4-DICHLOROPHENOL	2. ND
	2, 4-DIMETHYLPHENOL	2. ND
88-75-5		2. ND
	4-NITROPHENOL	2. ND
	2,4-DINITROPHENOL	2. ND
	4, 6-DINITRO-2-METHYLPHENOL	2. ND
	PENTACHLOROPHENOL	2. ND
108-95-2		2. ND
	BENZOIC ACID	2. ND 2. ND
	2-METHYLPHENOL 4-METHYLPHENOL	2. ND
		2. ND
	2, 4, 5-TRICHLOROPHENOL ACENAPHTHENE	2. ND 2. ND
120-82-1		2. ND
118-74-1	· · · · · · · · · · · · · · · · · · ·	2. ND
	HEXACHLOROETHANE	2. ND
	BIS(2-CHLOROETHYL)ETHER	2. ND
	2-CHLORONAPHTHALENE	2. ND
	1,2-DICHLOROBENZENE	2. ND
	1, 3-DICHLOROBENZENE	2. ND
	1, 4-DICHLOROBENZENE	2. ND
	3,3'-DICHLOROBENZIDINE	- 2. ND
121-14-2	2, 4-DINITROTOLUENE	2. ND 🦡
606-20-2	2,6-DINITROTOLUENE	2. ND
	1,2-DIPHENYLHYDRAZINE	2. ND
	FLUORANTHENE	2. ND
	4-CHLOROPHENYL PHENYL ETHER	2. ND
	4-BROMOPHENYL PHENYL ETHER	2. ND
	BIS(2-CHLOROISOPROPYL)ETHER	2. ND
	BIS(2-CHLOROETHOXY)METHANE	2. ND
	HEXACHLOROBUTADIENE	2. ND
	HEXACHLOROCYCLOPENTADIENE	2. ND
· -	ISOPHORONE	2. ND
91-20-3 98-95-3	NAPHTHALENE NITROBENZENE	2. ND 2. ND
86-30-6	N-NITROSODIPHENYLAMINE	2. ND 2. ND
621-64-7		2. ND
	BIS(2-ETHYLHEXYL)PHTHALATE	2. ND
_		. 2. ND
	DI-N-BUTYL PHTHALATE	2. ND
–	DI-N-OCTYL PHTHALATE	2. ND
	DIETHYL PHTHALATE	2. ND
	DIMETHYL PHTHALATE	2. ND
	BENZO(A)ANTHRACENE	2. ND
	BENZO(A)PYRENE	2. ND
·	BENZO(B)FLUORANTHENE	2. ND
207-08-9	BENZO(K)FLUORANTHENE	2. ND

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET - PAGE 2 BASE/NEUTRAL AND ACID COMPOUNDS

SAMPLE IDENTIFICATION: 1-SW-1

DATE ANALYZED: 04/30/86

UNITS: UG/L

CAS #	COMPOUND	CONC
89225	85=22248	6223
218-01-9	CHRYSENE	2. ND
208-96-8	· ACENAPHTHYLENE	2. ND
120-12-7	ANTHRACENE	· 2. ND
191-24-2	BENZO(GHI)PERYLENE	2. ND
86-73-7	FLUORENE	2. ND
85-01-8	PHENANTHRENE	2. ND
53-70-3	DIBENZO(A, H)ANTHRACENE	2. ND
193-39-5	INDENO(1,2,3-CD)PYRENE	2. ND
129-00-0	PYRENE	2. ND -
100-51-6	BENZYL ALCOHOL	2. ND
106-47-8	4-CHLOROANILINE	2. ND
132-64-9	DIBENZOFURAN	2. ND
91-57-6	2-METHYLNAPHTHALENE	2. ND
88-74-4	2-NITROANILINE	2. ND
99-09-2	3-NITROANILINE	2. ND
100-01-6	4-NITROANILINE	2. ND

ND - THIS COMPOUND WAS NOT DETECTED; THE LIMIT OF DETECTION FOR THIS COMPOUND IS STATED TO THE LEFT OF THE ND SPECIFIER.

TR - TRACE, THIS COMPOUND WAS PRESENT, BUT WAS BELOW THE LEVEL AT WHICH THE CONCENTRATION COULD ACCURATELY BE DETERMINED. THE APPROXIMATE CONCENTRATION IS REPORTED FOR YOUR REFERENCE.

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

ES Job No56428		Lab Sample No	36528-7
Client	<u> </u>	Field Sample No. <u>F</u>	JKS, 1-MW-1, GW-2, IT
Project PJKS - Air Force, [Denver,_CO	Date Collected	4-11-86
Client No.		Date Received	4-12-86
Laboratory Supervisor Approx		Date Analyzed	4-15-86
	· · · · · · · · · · · · · · · · · · ·	QC Report No.	8020-19
Sample Matrix:	•		
/X_/ Water (ug/L)	•	Dilution Factor	N/A
/ Soil	•	*Moisture	
/ Other	•		
Spike Source		•	

•	Co	Concentration			Retention Time		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes	
Benzene	1.0	ND<1.0					
Chlorobenzene	1.0	ND<1.0			,		
1,2-Dichlorobenzene	1.0	ND<1.0					
1,3-Dichlorobenzene	1.0	ND<1.0					
1,4-Dichlorobenzene	1.0	ND<1.0					
Ethyl benzene	1.0	ND<1.0					
Toluene	1.0	ND<1.0					
Xylenes (Dimethyl benzene)	1.0	ND<1.0					
<u> </u>							
	<u></u>			<u> </u>			
•			į				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

ES Job No	Lab Sample No	36528-9
Client	Field Sample No.	PJKS, 4-MW-4, GW-2, IT
Project PJKS - Air Force, Denver, CO	Date Collected _	4-11-86
Client No.	Date Received _	4-12-86
Laboratory Supervisor Approval:	Date Analyzed	4-15-86
:	QC Report No.	8020-19
Sample Matrix:	- ·	
/X_/ Water (ug/L)	Dilution Factor	N/A
/ Soil .	*Moisture	*
Other		
Spike Source		

•	Co	Concentration			on Time]
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzene	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0		,.: 		
1,2-Dichlorobenzene	1.0	ND<1.0			4,5	
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Ethyl benzene	1.0	ND<1.0				
Toluene	1.0	ND<1.0				
Xylenes (Dimethyl benzene)	1.0	ND<1.0				
•						
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ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

•		4-Ma-	
ES Job No56428	Lab Sample No	36528-10/	
Client	Field Sample No.	PJKS, 5-MW-6, GW-4, IT	
Project PJKS - Air Force, Denver, CO	Date Collected _	4-11-86	
Client No.	Date Received _	4-12-86	
Laboratory Supervisor Approval:	Date Analyzed	4-15-86	
	QC Report No.	8020-19	
Sample Matrix:	· · · · · · · · · · · · · · · · · · ·		
/X_/ Water (ug/L)	Dilution Factor	N/A	
/ Soil .	*Moisture		š
/ Other			
Spike Source			

• •	co	Concentration			Retention Time		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes	
Benzene	1.0	ND<1.0					
Chlorobenzene	1.0	ND<1.0					
1,2-Dichlorobenzene	1.0	1.1		14.6	1.3 		
1,3-Dichlorobenzene	1.0	TR<1.0		13.0		, -	
1,4-Dichlorobenzene	1.0	1.7		12.5			
Ethyl benzene	1.0	ND<1.0					
Toluene	1.0	ND<1.0					
Xylenes (Dimethyl benzene)	1.0	ND<1.0				···	
·							

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY Purgeable Áromatics EPA Method 602

ES Job No. <u>56428</u> Client Project <u>PJKS - Air Force, Denver, CO</u> Client No. Laboratory Supervisor Approval:	Lab Sample No Field Sample No. Date Collected Date Received Date Analyzed	PJKS, 5-MW-6, GW-3, IT 4-11-86 4-12-86		
Sample Matrix:	QC Report No.	8020-19		
/X / Water (ug/L) /_ / Soil /_ / Other	Dilution Factor _ *Moisture			
Spike Source				

	Concentration			Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzene	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0		:		
1,2-Dichlorobenzene	1.0	ND<1.0			4.0	
1,3-Dichlorobenzene	1.0	TR<1.0		7-		
1,4-Dichlorobenzene	1.0	TR<1.0				
Ethyl benzene	1.0	ND<1.0				
Toluene	1.0	ND<1.0				
Xylenes (Dimethyl benzene)	1.0	ND<1.0				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

ES Job No56428		Lab Sample No.	36528-8	
Client	<u> </u>	Field Sample No	o. PJKS, 10-MW-8,	GW-2, IT
Project PJKS - Air Force, Denv	er, CO	Date Collected	4-11-86	
Client No.		Date Received	4-12-86	
Laboratory Supervisor Approval:		Date Analyzed	4-15-86	
		QC Report No.	8020-19	
Sample Matrix:	1 :			
/X / Water (ug/L)	•	Dilution Factor	r N/A	
/ Soil	•	*Moisture		*
/ Other	• • .			
Spike Source				
		ntration	Patention Time	T

•-	Concentration			Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzene	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0		• :		
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Ethyl benzene	1.0	ND<1.0				
Toluene	1.0	ND<1.0				
Xylenes (Dimethyl benzene)	1.0	ND<1.0				
•						
:						

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

IT Results for 601 and 602 Methods Dated 4/23/86 and 4/24/86

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No56423	Lab Sample No	36686-19
Client	Field Sample No.	PJKS, 1-MW-1, GW-3, IT
ProjectAir Force PJKS	Date Collected _	4-24-86
Client No.	Date Received _	4-25-86
Laboratory Supervisor Approval:	Date Analyzed _	4-30-86
	QC Report No	601-28
Sample Matrix:		
/X_/ Water (ug/L)	Dilution Factor	N/A
/ Soil	*Moisture	9
/_/ Other		
Spike Source		

			<u>oncentrati</u>	on	Retention Time		1
	Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Not
	Benzyl chloride	1.0	ND<1.0				
	Bis(2-Chloroethoxy)methane	1.0	ND<1.0			·	
	Bis(2-chloroisopropyl)ether	1.0	ND<1.0				
	Bromobenzene	1.0	ND<1.0				
ļ	<u>Bromodichloromethane</u>	1.0	ND<1.0			<u> </u>	$oldsymbol{ol}}}}}}}}}}}}}}}}}$
	Bromoform	1.0	ND<1.0		·		
	Bromomethane	1.0	ND<1.0				
	Carbon tetrachloride	1.0	ND<1.0				
	Chloroacetaldehyde	1.0	ND<1.0				
	Chloral	1.0	ND<1.0				<u> </u>
	Chlorobenzene	1.0	ND<1.0				
	Chloroethane	1.0	ND<1.0				$oldsymbol{ol}}}}}}}}}}}}}}}}}}$
	Chloroform	1.0	ND<1.0				
	1-Chlorohexane	1.0	ND<1.0				
	2-Chloroethyl vinyl ether	1.0	ND<1.0				<u> </u>
,	Chloromethane	1.0	ND<1.0				1_
	Chloromethyl methyl ether	1.0	ND<1.0				
	Chlorotoluene	1.0	ND<1.0				1_
	Dibromochloromethane	1.0	ND<1.0				
	Continued						
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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 1-MW-1, GW-3, IT

•	Concentration			Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Dibromomethane.	1.0	ND<1.0				
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Dichlorodifluoromethane	1.0	ND<1.0				
1,1-Dichloroethane	1.0	1.8		10.3		
1,2-Dichloroethane	1.0	ND<0.1				
1,1-Dichloroethylene	1.0	1.2		9.2		
trans-1,2-dichloroethylene	1.0	ND<1.0				
<u>Dichloromethane</u>	1.0	ND<1.0				
1,2-Dichloropropane	1.0	ND<1.0				
1,3-Dichloropropylene	1.0	ND<1.0				
1,1,2,2-Tetrachloroethane	1.0	ND<1.0		;		
1,1,1,2-Tet chloroethane	1.0	ND<1.0				
Tetrachloroethylene	1.0	ND<1.0		•		····
1,1,1-Trichloroethane	1.0	ND<1.0				
1,1,2-Trichloroethane	1.0	ND<1.0				
Trichloroethylene	1.0	130	125	16.4	12.8	
Trichlorofluoromethane	1.0	ND<1.0				
Trichloropropane	1.0	ND<1.0				
Vinyl chloride	1.0	ND<1.0				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No. <u>56423</u>	Lab Sample No	36686-6
Client	Field Sample No. F	JKS, 1-MW-2, GW-3, ITT
Project Air Force PJKS	Date Collected	4-24-86
Client No.	Date Received	4-25-86
Laboratory Supervisor Approval:	Date Analyzed	5-2-86
	QC Report No.	601-28
Sample Matrix:		
<u>/X</u> / Water (ug/L)	Dilution Factor	. N/A
// Soil	*Moisture	9
/_/ Other		<u>, _ , _ , </u>
Spike Source		

	Concentration			Retenti]	
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1.0	ND<1.0				<u> </u>
Bis(2-Chloroethoxy)methane	1.0	ND<1.0				
Bis(2-chloroisopropyl)ether	1.0	ND<1.0				
Bromobenzene	1.0	ND<1.0		٠٠:		<u> </u>
Bromodichloromethane	1.0	ND<1.0	•		^ <u> </u>	
Bromoform	1.0	ND<1.0				
Bromomethane	1.0	ND<1.0			,	
Carbon tetrachloride	1.0	ND<1.0				
Chloroacetaldehyde	1.0	ND<1.0				
Chloral	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0				
Chloroethane	1.0	ND<1.0				
Chloroform	1.0	ND<1.0				
1-Chlorohexane	1.0	ND<1.0				<u> </u>
2-Chloroethyl vinyl ether	1.0	ND<1.0				<u> </u>
Chloromethane	1.0	ND<1.0				
Chloromethyl methyl ether	1.0	ND<1.0			-7-	
Chlorotoluene	1.0	ND<1.0				
Dibromochloromethane	1.0	ND<1.0				

Continued

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 1-MW-2, GW-3, IT

	Concentration			Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Dibromomethane	1.0	ND<1.0				
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Dichlorodifluoromethane	1.0	ND<1.0				
1,1-Dichloroethane	1.0	2.0		10.4		
1,2-Dichloroethane	1.0	ND<0.1				
1,1-Dichloroethylene	1.0	ND<1.0				
trans-1,2-dichloroethylene	1.0	ND<1.0				
Dichloromethane	1.0	ND<1.0				
1,2-Dichloropropane	1.0	ND<1.0				
1,3-Dichloropropylene	1.0	ND<1.0				
1,1,2,2-Tetrachloroethane	1.0	1.2		21.9		
1,1,1,2-Tetrachloroethane	1.0	ND<1.0				
Tetrachloroethylene	1.0	1.2		- 21.9		
1,1,1-Trichloroethane	1.0	9.0		13.4	,	
1,1,2-Trichloroethane	1.0	ND<1.0				
Trichloroethylene	1.0	67.0	80	16.4	12.8	
Trichlorofluoromethane	1.0	ND<1.0				
Trichloropropane	1.0	ND<1.0				
Vinyl chloride	1.0	ND<1.0				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No56423	Lab Sample No	36686-18
Client	Field Sample No. P	JKS, 2-MW-3, GW-3, IT
Project Air Force PJKS	Date Collected	4-23-86
Client No.	Date Received	4-25-86
Laboratory Supervisor Approval:	Date Analyzed	4-30-86
	QC Report No.	601-28
Sample Matrix:		
<u>/X</u> / Water (ug/L)	Dilution Factor	N/A
/ Soil	*Moisture	
/_/ Other		
Spike Source		

	Concentration			Retention Time		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1.0	ND<1.0	***			
Bis(2-Chloroethoxy)methane	1.0	ND<1.0				
Bis(2-chloroisopropyl)ether	1.0	ND<1.0				
Bromobenzene	1.0	ND<1.0				<u> </u>
Bromodichloromethane	1.0	ND<1.0	••••		4.2.	
Bromoform	1.0	ND<1.0		z-1		ļ
Bromomethane	1.0	ND<1.0			`	ļ
Carbon tetrachloride	1.0	ND<1.0				
Chloroacetaldehyde	1.0	ND<1.0				
Chloral	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0				
Chloroethane	1.0	ND<1.0				
Chloroform	1.0	ND<1.0				
1-Chlorohexane	1.0	ND<1.0				
2-Chloroethyl vinyl ether	1.0	ND<1.0				
Chloromethane	1.0	ND<1.0				
Chloromethyl methyl ether	1.0	ND<1.0				
Chlorotoluene	1.0	ND<1.0				
Dibromochloromethane	1.0	ND<1.0				

Continued

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 2-MW-3, GW-3, IT

	Concentration			Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Dibromomethane	1.0	ND<1.0				
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Dichlorodifluoromethane	1.0	ND<1.0				
1,1-Dichloroethane	1.0	12.7	334	10.3	11.9	
1,2-Dichloroethane	1.0	ND<0.1				
1,1-Dichloroethylene	1.0	ND<1.0				
trans-1,2-dichloroethylene	1.0	ND<1.0				
Dichloromethane	1.0	ND<1.0				
1,2-Dichloropropane	1.0	ND<1.0				i
1,3-Dichloropropylene	1.0	ND<1,0				
1,1,2,2-Tetrachloroethane	1.0	ND<1.0				-
1,1,1,2-Tetrachloroethane	1.0	ND<1.0				
Tetrachloroethylene	1.0	ND<1.0		•		
1,1,1-Trichloroethane	1.0	ND<1.0				
1,1,2-Trichloroethane	1.0	ND<1.0				
Trichloroethylene	1.0	1110	841	16.4	12.7	
Trichlorofluoromethane	1.0	ND<1.0				
Trichloropropane	1.0	ND<1.0				
Vinyl chloride	1.0	ND<1.0				•

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No. <u>56423</u>	Lab Sample No	36686-13
Client		PJKS, 5-MW-4, GW-3, IT
Project Air Force PJKS	Date Collected _	4-23-86
Client No.	Date Received _	4-25-86
Laboratory Supervisor Approval:	Date Analyzed _	4-30-86
	QC Report No	601-28
Sample Matrix:	·	
<u>/X</u> / Water (ug/L)	Dilution Factor	N/A
/ Soil	*Moisture	*
/ Other		
Spike Source		

	Concentration			Retenti	J	
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1.0	ND<1.0				
Bis(2-Chloroethoxy)methane	1.0	ND<1.0				
Bis(2-chloroisopropyl)ether	1.0	ND<1.0				
Bromobenzene	1.0	ND<1.0				
Bromodichloromethane	1.0	ND<1.0			,	
Bromoform	1.0	ND<1.0		<u>ن</u>		
Bromomethane	1.0	ND<1.0			'	
Carbon tetrachloride	1.0	ND<1.0				
Chloroacetaldehyde	1.0	ND<1.0				
Chloral	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0				
Chloroethane	1.0	ND<1.0				
Chloroform	1.0	ND<1.0				
1-Chlorohexane	1.0	ND<1.0				
2-Chloroethyl vinyl ether	1.0	ND<1.0				
Chloromethane	1.0	ND<1.0				
Chloromethyl methyl ether	1.0	ND<1.0				
Chlorotoluene .	1.0	ND<1.0				
<u>Dibromochloromethane</u>	1.0	ND<1.0				

Continued

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 5-MW-4, GW-3, IT

	Co	ncentratio	n	Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
<u>Dibromomethane</u>	1.0	ND<1.0				
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Dichlorodifluoromethane	1.0	ND<1.0				
1,1-Dichloroethane	1.0	11.5	18.7	10.3	12.0	
1,2-Dichloroethane	1.0	ND<0.1				
1,1-Dichloroethylene	1.0	ND<1.0				
trans-1,2-dichloroethylene	1.0	36,2	<1.0	11.0		
Dichloromethane	1.0	ND<1.0				
1,2-Dichloropropane	1.0	ND<1.0				
1,3-Dichloropropylene	1.0	ND<1.0				
1,1,2,2-Tetrachloroethane	1.0	1.2	1.6.	219	14.8	
1,1,1,2-Tetrachloroethane	1.0	ND<1.0		`	. :	
Tetrachloroethylene	1.0	1.2	1.6	21.9 -	14.8	
1,1,1-Trichloroethane	1.0	28.6	12.4	13.4	12.4	
1,1,2-Trichloroethane	1.0	ND<1.0				
Trichloroethylene	1.0	67.0	80.5	16.4	12.8	···
Trichlorofluoromethane	1.0	ND<1.0				
Trichloropropane	1.0	ND<1.0				
Vinyl chloride	1.0	ND<1.0				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No56423	Lab Sample No	36686-14
Client		PJKS, 5-MW-5, GW-3, IT
Project Air Force PJKS	Date Collected _	4-23-86
Client No.	Date Received	4-25-86
Laboratory Supervisor Approval:	Date Analyzed _	4-30-86
	QC Report No	601-28
Sample Matrix:		
<u>/X</u> / Water (ug/L)	Dilution Factor	N/A
/ Soil	*Moisture	x
/ Other		
Spike Source		

	Concentration			Retenti	1	
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1.0	ND<1.0				<u> </u>
Bis(2-Chloroethoxy)methane	1.0	ND<1.0			'	<u> </u>
Bis(2-chloroisopropyl)ether	1,0	ND<1.0				
Bromobenzene	1.0	ND<1.0	•••			
Bromodichloromethane	1.0	ND<1.0				
Bromoform	1.0	ND<1.0				
Bromomethane	1.0	ND<1.0				
Carbon tetrachloride	1.0	ND<1.0				
Chloroacetaldehyde	1.0	ND<1.0				
Chloral	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0				
Chloroethane	1.0	ND<1.0				
Chloroform	1.0	ND<1.0				
1-Chlorohexane	1.0	ND<1.0				
2-Chloroethyl vinyl ether	1.0	ND<1.0				
Chloromethane	1.0	ND<1.0				
Chloromethyl methyl ether	1.0	ND<1.0				
Chlorotoluene	1.0	ND<1.0			***	
Dibromochloromethane	1.0	ND<1.0				

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 5-MW-5, GW-3, IT

	Co	Concentration			Retention Time		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes	
Dibromomethane	1.0	ND<1.0					
1,2-Dichlorobenzene	1.0	ND<1.0					
1,3-Dichlorobenzene	1.0	ND<1.0					
1,4-Dichlorobenzene	1.0	ND<1.0					
Dichlorodifluoromethane	1.0	ND<1.0					
1,1-Dichloroethane	1.0	ND<1.0					
1,2-Dichloroethane	1.0	ND<0.1					
1,1-Dichloroethylene	1.0	ND<1.0			·		
trans-1,2-dichloroethylene	1.0	2.3		11.1			
Dichloromethane	1.0	ND<1.0					
1,2-Dichloropropane	1.0	ND<1.0					
1,3-Dichloropropylene	1.0	ND<1.0					
1,1,2,2-Tetrachloroethane	1.0	ND<1.0					
1,1,1,2-Tetrachloroethane	1.0	ND<1.0					
Tetrachloroethylene	1.0	ND<1.0	·				
1,1,1-Trichloroethane	1.0	TR<1.0					
1,1,2-Trichloroethane	1.0	ND<1.0					
Trichloroethylene	1.0	ND<1.0					
Trichlorofluoromethane	1.0	ND<1.0				·- · · · ·	
Trichloropropane	1.0	ND<1.0					
Vinyl chloride	1.0	ND<1.0					

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No56423	Lab Sample No	\$ 36686-15, 36686-16
Client	Field Sample No.	PJKS, 4-MW-6, GW-5, IT
Project Air Force PJKS	Date Collected _	4-23-86
Client No.	Date Received _	4-25-86
Laboratory Supervisor Approval:	Date Analyzed _	4-30-86
	QC Report No.	601-28
Sample Matrix:		
<u>/X</u> / Water (ug/L)	Dilution Factor	N/A
// Soil	*Moisture	*
/_/ Other		
Spike Source		

	Concentration			Retention Time		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1.0	ND<1.0				
Bis(2-Chloroethoxy)methane	1.0	ND<1.0				
Bis(2-chloroisopropyl)ether	1.0	ND<1.0				
Bromobenzene	1.0	ND<1.0	,			
Bromodichloromethane	1.0	ND<1.0				
Bromoform	1.0	ND<1.0				
Bromomethane	1.0	ND<1.0				
Carbon tetrachloride	1.0	ND<1.0				<u> </u>
Chloroacetaldehyde	1.0	ND<1.0				
Chloral	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0				
Chloroethane	1.0	ND<1.0				
Chloroform	1.0	ND<1.0				
1-Chlorohexane	1.0	ND<1.0				
2-Chloroethyl vinyl ether	1.0	ND<1.0				
Chloromethane	1.0	ND<1.0				
Chloromethyl methyl ether	1.0	ND<1.0				
Chlorotoluene	1.0	ND<1.0				
Dibromochloromethane	1.0	ND<1.0				

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^{\$ -} Different amounts of sample were used in analysis for quantitation purposes.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 4-MW-6, GW-5, IT

ſ	Co	ncentratio	n	Retenti	on Time	
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Dibromomethane	1.0	ND<1.0				
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Dichlorodifluoromethane	1.0	ND<1.0				
1,1-Dichloroethane	1.0	4.0		10.3		
1,2-Dichloroethane	1.0	ND<0.1				
1,1-Dichloroethylene	1.0	1.9		9.3		
trans-1,2-dichloroethylene	1.0	290.0	4.0	11.0	9.1	
Dichloromethane	1.0	ND<1.0				
1,2-Dichloropropane	1.0	ND<1.0				
1,3-Dichloropropylene	1.0	ND<1.0				
1,1,2,2-Tetrachloroethane	1.0	ND<1.0		:		
1,1,1,2-Tetrachloroethane	1.0	ND<1.0				
Tetrachloroethylene	1.0	ND<1.0		•	• • •	
1,1,1-Trichloroethane	1.0	ND<1.0				<u> </u>
1,1,2-Trichloroethane	1.0	ND<1.0				
Trichloroethylene	1.0	190.0	194	16.4	12.7	
Trichlorofluoromethane	1.0	ND<1.0				
Trichloropropane	1.0	ND<1.0				
Vinyl chloride	1.0	ND<1.0				<u> </u>

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No56423	Lab Sample No	36686-17
Client		PJKS, 4-MW-6, GW-6, IT
Project Air Force PJKS	Date Collected _	4-23-86
Client No.	Date Received _	4-25-86
Laboratory Supervisor Approval:	Date Analyzed _	4-30-86
	QC Report No	601-28
Sample Matrix:		
/X_/ Water (ug/L)	Dilution Factor	N/A
/ Soil	*Moisture	\$
/ Other		
Spike Source		

	Concentration			Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1.0	ND<1.0				
Bis(2-Chloroethoxy)methane	1.0	ND<1.0				
Bis(2-chloroisopropyl)ether	1.0	ND<1.0				
Bromobenzene	1.0	ND<1.0				
Bromodichloromethane	1.0	ND<1.0	•			
Bromoform	1.0	ND<1.0		~~. <u></u>		
Bromomethane	1.0	ND<1.0			'	
Carbon tetrachloride	1.0	ND<1.0				
Chloroacetaldehyde	1.0	ND<1.0				
Chloral	1.0	ND<1.0				
Ch1orobenzene	1.0	ND<1.0				
Chloroethane	1.0	ND<1.0				
Chloroform	1.0	ND<1.0				
1-Chlorohexane	1.0	ND<1.0				
2-Chloroethyl vinyl ether	1.0	ND<1.0				
Chloromethane	1.0	ND<1.0				
Chloromethyl methyl ether	1.0	ND<1.0				
Chlorotoluene	1.0	ND<1.0				
Dibromochloromethane	1.0	ND<1.0				

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 4-MW-6, GW-6, IT

	Co	Concentration Retention Time		Retention Time		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Dibromomethane	1.0	ND<1.0				
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Dichlorodifluoromethane	1.0	ND<1.0				
1,1-Dichloroethane	1.0	4.2		10.4		
1,2-Dichloroethane	1.0	ND<0.1				
1,1-Dichloroethylene	1.0	ND<1.0				
trans-1,2-dichloroethylene	1.0	350	3.6	11.0	9.2	
Dichloromethane	1.0	ND<1.0		,		
1,2-Dichloropropane	1.0	ND<1.0				
1,3-Dichloropropylene	1.0	ND<1.0				
1,1,2,2-Tetrachloroethane	1.0	ND<1.0				
1,1,1,2-Tetrachloroethane	1.0	ND<1.0				
Tetrachloroethylene	1.0	ND<1.0			•	· · · · · · · · · · · · · · · · · · ·
1,1,1-Trichloroethane	1.0	9.0		13.5		
1,1,2-Trichloroethane	1.0	ND<1.0				
Trichloroethylene	1.0	190	178	16.4	12.7	
Trichlorofluoromethane	1.0	ND<1.0				
Trichloropropane	1.0	ND<1.0				
Vinyl_chloride_	1.0	ND<1.0				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No. <u>56423</u>	Lab Sample No	36686-5
Client		PJKS, 10-MW-8, GW-3, IT
ProjectAir Force PJKS	Date Collected _	4-24-86
Client No.	Date Received _	4-25-86
Laboratory Supervisor Approval:	Date Analyzed _	5-2-86
	QC Report No	601-28
Sample Matrix:		
/X_/ Water (ug/L)	Dilution Factor	N/A
/ Soil	*Moisture	*
/_/ Other		
Spike Source		

	С	Concentration F			Retention Time	
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1.0	ND<1.0	·			
Bis(2-Chloroethoxy)methane	1.0	ND<1.0				
Bis(2-chloroisopropyl)ether	1.0	ND<1.0				
Bromobenzene	1.0	ND<1.0				
Bromodichloromethane	1.0	ND<1.0			<u> </u>	
Bromoform	1.0	ND<1.0		7-,		
Bromomethane	1.0	ND<1.0				
Carbon tetrachloride	1.0	ND<1.0				<u> </u>
Chloroacetaldehyde	1.0	ND<1.0				
Chloral	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0				
Chloroethane	1.0	ND<1.0				
Chloroform	1.0	ND<1.0				
1-Chlorohexane	1.0	ND<1.0				
2-Chloroethyl vinyl ether	1.0	ND<1.0				
Chloromethane	1.0	ND<1.0				
Chloromethyl methyl ether	1.0	ND<1.0				
Chlorotoluene	1.0	ND<1.0				
Dibromochloromethane	1.0	ND<1.0				

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, 10-MW-8, GW-3, IT

	Co	ncentratio		Retenti	on Time	
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Not es
Dibromomethane	1.0	ND<1.0				
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Dichlorodifluoromethane	1.0	ND<1.0				
1,1-Dichloroethane	1.0	ND<1.0				
1,2-Dichloroethane	1.0	ND<0.1				
1,1-Dichloroethylene	1.0	ND<1.0				
trans-1,2-dichloroethylene	1.0	ND<1.0				
Dichloromethane	1.0	ND<1.0				· · · · · · · · · · · · · · · · · · ·
1,2-Dichloropropane	1.0	ND<1.0	·			
1,3-Dichloropropylene	1.0	ND<1.0				
1,1,2,2-Tetrachloroethane	1.0	ND<1.0		,:		
1,1,1,2-Tetrachloroethane	1.0	ND<1.0				
Tetrachloroethylene	1.0	ND<1.0				
1,1,1-Trichloroethane	1.0	18.0		13.4		i.
1,1,2-Trichloroethane	1.0	ND<1.0				
Trichloroethylene	1.0	490	101	16.5	12.8	
Trichlorofluoromethane	1.0	ND<1.0				
Trichloropropane	1.0	ND<1.0				
Vinyl chloride	1.0	ND<1.0				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

Engineering Science Page 14

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No56423	Lab Sample No	36686-20	_
Client	Field Sample No.	PJKS, Field Blank	_
Project <u>Air Force PJKS</u>	Date Collected	4-23-86	_
Client No.	Date Received	4-25-86	_
Laboratory Supervisor Approval:	Date Analyzed	4-30-86	_
	QC Report No	601-28	
Sample Matrix:	•		
<u>/X</u> / Water (ug/L)	Dilution Factor _	N/A	
/ Soil	*Moisture		*
/_/ Other			
Spike Source			

	С	Concentration		Retention_Time]
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1.0	ND<1.0				<u> </u>
Bis(2-Chloroethoxy)methane	1.0	ND<1.0				<u> </u>
Bis(2-chloroisopropyl)ether	1.0	ND<1.0				
Bromobenzene	1.0	ND<1.0				
Bromodichloromethane	1.0	ND<1.0				
Bromoform	1.0	ND<1.0				
Bromomethane	1.0	ND<1.0			'	
Carbon tetrachloride	1.0	ND<1.0				<u> </u>
Chloroacetaldehyde	1.0	ND<1.0				<u> </u>
Chloral	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0		<u> </u>		
Chloroethane	1.0	ND<1.0				
Chloroform	1.0	ND<1.0				
1-Chlorohexane	1.0	ND<1.0				<u> </u>
2-Chloroethyl vinyl ether	1.0	ND<1.0				
Chloromethane	1.0	ND<1.0				1
Chloromethyl methyl ether	1.0	ND<1.0				
Chlorotoluene	1.0	ND<1.0				
Dibromochloromethane	1.0	ND<1.0				

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ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, Field Blank

<u> </u>	Co	ncentratio	<u> </u>	Retenti	Retention Time		
Compound	Det Lim	Column 1	Column 2		Column 2	Notes	
Dibromomethane.	1.0	ND<1.0					
1,2-Dichlorobenzene	1.0	ND<1.0					
1,3-Dichlorobenzene	1.0	ND<1.0					
1,4-Dichlorobenzene	1.0	ND<1.0					
Dichlorodifluoromethane	1.0	ND<1.0	:				
1,1-Dichloroethane	1.0	ND<1.0				· -	
1,2-Dichloroethane	1.0	ND<0.1					
1,1-Dichloroethylene	1.0	ND<1.0					
trans-1,2-dichloroethylene	1.0	ND<1.0					
Dichloromethane	1.0	ND<1.0					
1,2-Dichloropropane	1.0	ND<1.0					
1,3-Dichloropropylene	1.0	ND<1.0					
1,1,2,2-Tetrachloroethane	1.0	ND<1.0					
1,1,1,2-Tetrachloroethane	1.0	ND<1.0					
Tetrachloroethylene	1.0	ND<1.0					
1,1,1-Trichloroethane	1.0	ND<1.0					
1,1,2-Trichloroethane	1.0	ND<1.0			`		
Trichloroethylene	1.0	2.2	0.7	16.4	12.9		
Trichlorofluoromethane	1.0	ND<1.0					
Trichloropropane	1.0	ND<1.0					
Vinyl chloride	1.0	ND<1.0					

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

ES Job No. <u>56423</u>	Lab Sample No	36686-21	
Client	Field Sample No. P		
Project <u>Air Force PJKS</u>	Date Collected	4-23-86	
Client No.	Date Received		
Laboratory Supervisor Approval:	Date Analyzed		
	QC Report No.		
Sample Matrix:			
<u>/X</u> / Water (ug/L)	Dilution Factor	N/A	
/ Soil	*Moisture		<u> </u>
/_/ Other			
Spike Source			

ſ	Concentration Retention Time			4		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzyl chloride	1.0	ND<1.0				<u> </u>
Bis(2-Chloroethoxy)methane	1.0	ND<1.0				
Bis(2-chloroisopropyl)ether	1.0	ND<1.0				
Bromobenzene	1.0	ND<1.0				<u>. </u>
Bromodichloromethane	1.0	ND<1.0				<u> </u>
Bromoform	1.0	ND<1.0				
Bromomethane	1.0	ND<1.0			'	
Carbon tetrachloride	1.0	ND<1.0				
Chloroacetaldehyde	1.0	ND<1.0				
Chloral	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0				<u> </u>
Chloroethane	1.0	ND<1.0				
Chloroform	1.0	ND<1.0				
1-Chlorohexane	1.0	ND<1.0				
2-Chloroethyl vinyl ether	1.0	ND<1.0				
Chloromethane	1.0	ND<1.0				
Chloromethyl methyl ether	1.0	ND<1.0				
Chlorotoluene	1.0	ND<1.0				
Dibromochloromethane	1.0	ND<1.0				

Continued

ANALYTICAL RESULTS SUMMARY Purgeable Halocarbons EPA Method 601

PJKS, Trip Blank

	Concentration			Retenti		
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Dibromomethane	1.0	ND<1.0				
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Dichlorodifluoromethane	1.0	ND<1.0				
1,1-Dichloroethane	1.0	ND<1.0				
1,2-Dichloroethane	1.0	ND<0.1				
1,1-Dichloroethylene	1.0	ND<1.0				
trans-1,2-dichloroethylene	1.0	ND<1.0				
Dichloromethane	1.0	ND<1.0				
1,2-Dichloropropane	1.0	ND<1.0				
1,3-Dichloropropylene	1.0	ND<1.0				
1,1,2,2-Tetrachloroethane	1.0	ND<1.0				
1,1,1,2-Tetrachloroethane	1.0	ND<1.0				
Tetrachloroethylene	1.0	ND<1.0	-			
1,1,1-Trichloroethane	1.0	ND<1.0				
1,1,2-Trichloroethane	1.0	ND<1.0				
Trichloroethylene	1.0	TR<1.0				
Trichlorofluoromethane	1.0	ND<1.0				
Trichloropropane	1.0	ND<1.0				
Vinyl chloride	1.0	ND<1.0				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

ES Job No. 56423 Client Project Air Force PJKS Client No. Laboratory Supervisor Approval: Sample Matrix: /X / Water (ug/L)		F D D Q	ield Sampl ate Collec ate Receiv ate Analyz C Report N	e No. <u>PJKS</u> ted ed o		iW-3, IT
/_/ Soil /_/ Other Spike Source	 	. * M		-		
Compound	Co Det Lim	ncentratio		Retenti Column 1	on Time	Notes
Benzene	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0		:		
1,2-Dichlorobenzene	1.0	ND<1.0	•		1.2	
1,3-Dichlorobenzene	1.0	ND<1.0				· · · · · · · · · · · · · · · · · · ·
1,4-Dichlorobenzene	1.0	ND<1.0				· ·
Ethyl benzene	1.0	ND<1.0				
Toluene	1.0	ND<1.0				
Xylenes (Dimethyl benzene)	1.0	ND<1.0				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

ES JOD NO56423		L	ab Sample	NO	36686-14		
Client		Field Sample No. PJKS, 1-MW-2, GW-3,					
Project Air Force PJKS		Date Collected 4-24-86					
Client No.							
Laboratory Supervisor Approve			ate Analyz				
			C Report N				
Sample Matrix:	_			- <u>-</u>	-		
/X_/ Water (ug/L)		C	ilution Fa	ctor	N/A		
/ Soil		*P	loisture		N/A	x	
/ Other							
Spike Source							
							
		oncentratio	ND.	Petenti	on Time	İ	
Compound	Det Lim	Column 1	Column 2		Column 2	Notes	
Benzene	1.0	ND<1.0					
Chlorobenzene	1.0	ND<1.0	••				
	† • • • • • • • • • • • • • • • • • • •	1.0 1.0		 	7.)		
1,2-Dichlorobenzene	1.0	ND<1.0					
1 2 Dichloschenson	1.0	ND -1 0			<u> </u>		
1,3-Dichlorobenzene	1.0	ND<1.0					
1,4-Dichlorobenzene	1.0	ND<1.0					
Ethyl benzene	1.0	ND<1.0					
Toluene	1.0	ND<1.0					
Xylenes (Dimethyl benzene)	1.0	ND<1.0					
	†						
	1		1		.		

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

ES Job No56423	Lab Sample No	36686-17
Client	Field Sample No.	PJKS, 2-MW-3, GW-3, IT
Project Air Force PJKS	Date Collected	4-23-86
Client No.	Date Received	4-25-86
Laboratory Supervisor Approval:	Date Analyzed	5-13-86
	QC Report No.	602-23
Sample Matrix:		
<u>/X</u> / Water (ug/L)	Dilution Factor _	1:5
/ Soil	*Moisture	\$
/ Other		
Spike Source	· · · · · · · · · · · · · · · · · · ·	,

	Co	Concentration Reter			Retention Time	
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzene	5.0	ND<5.0				
Chlorobenzene	5.0	TR<5.0				
1,2-Dichlorobenzene	5.0	TR<5.0			٠	
1,3-Dichlorobenzene	5.0	TR<5.0		?		
1,4-Dichlorobenzene	5.0	TR<5.0				
Ethyl benzene	5.0	TR<5.0				
Toluene	5.0	TR<5.0				
Xylenes (Dimethyl benzene)	5.0	ND<5.0				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

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ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

ES Job No56423	Lab Sample No	36686-5	
Client	Field Sample No. P	JKS, 5-MW-4, GW-3	, IT
ProjectAir Force PJKS	Date Collected	4-23-86	
Client No.	Date Received	4-25-86	
Laboratory Supervisor Approval:	Date Analyzed	5-12-86	
	QC Report No.	602-23	
Sample Matrix:			
<u>/X</u> / Water (ug/L)	Dilution Factor	N/A	
// Soil	*Moisture		%
/_/ Other	,		
Spike Source			
]]	

	Concentration		Retenti			
Compound	Det Lim		Column 2	Column 1	Column 2	Notes
Benzene	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0	•••	: 		
1,2-Dichlorobenzene	1.0	ND<1.0			7.3	
1,3-Dichlorobenzene	1.0	ND<1.0			,	
1,4-Dichlorobenzene	1.0	ND<1.0				
Ethyl benzene	1.0	ND<1.0				
Toluene	1.0	ND<1.0				
Xylenes (Dimethyl benzene)	1.0	ND<1.0				
•						

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

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Service Control operator Control Service Control

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

ES Job No56423	Lab Sample No	36686-13	
Client	Field Sample No. P	JKS, 5-MW-5, GW-3,	IT
Project Air Force PJKS	Date Collected	4-23-86	
Client No.	Date Received	4-25-86	
Laboratory Supervisor Approval:	Date Analyzed	5-12-86	
	QC Report No.	602-23	
Sample Matrix:			
<u>/X</u> / Water (ug/L)	Dilution Factor	N/A	
/ Soil	*Moisture		
/_/ Other			_
Spike Source			

•	Co	ncentratio	ntration		on Time	
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzene	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0	•••	:		
1,2-Dichlorobenzene	1.0	TR<1.0			1.3	
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				·
Ethyl benzene	1.0	ND<1.0				
Toluene	1.0	ND<1.0				
Xylenes (Dimethyl benzene)	1.0	ND<1.0				
						· · · -
•						

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

ES Job No56423	Lab Sample No	36686-15		
Client	Field Sample No. 1		, IT	
Project Air Force PJKS	Date Collected	4-23-86		
Client No.	Date Received	4-25-86		
Laboratory Supervisor Approval:	Date Analyzed	5-13-86		
	QC Report No.	602-23		
Sample Matrix:				
/X_/ Water (ug/L)	Dilution Factor _	N/A		
/ Soil	*Moisture		*	
/_/ Other				
Spike Source		· · · · · · · · · · · · · · · · · · ·		

•	Concentration		Retenti			
Compound	Det Lim		Column 2	Column 1	Column 2	Notes
Benzene	1.0	ND<1.0				
Chlorobenzene	1.0	ND<1.0	***	,.: 		
1,2-Dichlorobenzene	1.0	ND<1.0		, -	1,3	
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Ethyl benzene	1.0	ND<1.0				
Toluene	1.0	TR<1.0				
Xylenes (Dimethyl benzene)	1.0	ND<1.0				
		! 				
•						

ND - This compound was not detected; the limit of detection for this analysis is . less than the amount stated in the table above.

ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

ES Job No56423	Lab Sample No	36686-16	_
Client	Field Sample No.	PJKS, 4-MW-6, GW-6, IT	
Project Air Force PJKS	Date Collected _	4-23-86	
Client No.	Date Received _	4-25-86	_
Laboratory Supervisor Approval:	Date Analyzed	5-13-86	_
	QC Report No	602-23	_
Sample Matrix:			
<pre>/X / Water (ug/L)</pre>	Dilution Factor	N/A	_
/ Soil	*Moisture	····	.*
/_/ Other			-
Spike Source			_

••	Co	Concentration			Retention Time	
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzene	1.0	ND<1.0				
Chlorobenzene	1.0	TR<1.0		:		
1,2-Dichlorobenzene	1.0	ND<1.0			1.3	
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Ethyl benzene	1.0	TR<1.0				
Toluene	1.0	TR<1.0				
Xylenes (Dimethyl benzene)	1.0	ND<1.0				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

TR - Trace, this compound was present, but was below the level at which concentration could be determined.

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ANALYTICAL RESULTS SUMMARY Purgeable Aromatics EPA Method 602

ES Job No56423	Lab Sample No	36686-6	
Client	Field Sample No.	PJKS, 10-MW-8, GW-	-3, <u>IT</u>
Project Air Force PJKS	Date Collected	4-24-86	
Client No.	Date Received	4-25-86	
Laboratory Supervisor Approval:	Date Analyzed	5-12-86	
	QC Report No.	602-23	
Sample Matrix:	-		
/X_/ Water (ug/L)	Dilution Factor _	N/A	
/ Soil	*Moisture		%
/ Other			
Spike Source			

	Concentration		Retention Time			
Compound	Det Lim	Column 1	Column 2	Column 1	Column 2	Notes
Benzene	1.0	ND<1.0			·	
Chlorobenzene	1.0	TR<1.0		~		
1,2-Dichlorobenzene	1.0	ND<1.0				
1,3-Dichlorobenzene	1.0	ND<1.0				
1,4-Dichlorobenzene	1.0	ND<1.0				
Ethyl benzene	1.0	TR<1.0				
Toluene	1.0	ND<1.0				
Xylenes (Dimethyl benzene)	1.0	ND<1.0				

ND - This compound was not detected; the limit of detection for this analysis is less than the amount stated in the table above.

Results from Method 625 - BNA's Dated 1/16/86

APPL, INC.

(azobenzene)

4-chlorophenyl phenyl ether

4-bromophenyl phenyl ether

Fluoranthene

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.

4167 NORTH MOTEL DRIVE, SUITE 102 • FRESNO, CALIFORNIA 93711 • PHONE (209) 275-2175

Engineering Science 1687 Tullie Circle, S Atlanta, Georgia 303		Sample Date: 01/14/86 Report Date: 01/23/86
Attn: Johnny Adamson		Page 1 of 3
	3 PJKS, 1-MW-1 , ES 12:30 5-1126	Date Received: 01/16/86
APPL Sample No: A005-		Date Extracted: 01/20/86
Method 625 Results:		Revised Report
Acid_Cmeds	Concentration vo	/l Detection_Limit_pg/l
2,4,6-trichlorophenol p-chloro-m-cresol 2-chlorophenol 2,4-dichlorophenol 2,4-dimethylphenol 2-nitrophenol 4-nitrophenol 2,4-dinitrophenol 4,6-dinitro-o-cresol Pentachlorophenol Phenol	ND * ND ND ND ND ND ND ND ND ND ND ND ND ND	6 6 2 1 4 3 40 42 25 3
Base/Neutral Cmpds	Concentration Po	<u> Detection Limit 49/1</u>
Acenaphthene Benzidine 1,2,4-trichlorobenzer Hexachlorobenzene Hexachloroethane bis (2-chloroethyl) e 2-chloronaphthalene 1,2-dichlorobenzene 1,3-dichlorobenzene 1,4-dichlorobenzene 3,3'-dichlorobenzidir 2,4-dinitrotoluene 2,6-dinitrotoluene	ND ND ND ND ND ND ND ND ND ND	4 80 3 4 2 4 4 2 4 4 20 6
1,2-diphenylhydrazine		6

ND

ND

ND

ND

Sample I.D. No: 56528 PJKS, 1-MW-1 GW-1, ES 12:30

Page 2 of 3

01-86-1126

APPL Sample No: A005-05466W

Method 625 Results con't

Base/Neutral Copds	Concentrat	<u>ion_ug/l</u>	Detection_Limit_Eq/1
bis-(2-chloroisoprop	yl) ether	ND	4
bis-(2-chloroethoxy)		ND	4
Hexachlorobutadiene		ND	6
Hexachlorocyclopenta	di en e	ND	. 40
Isophorone		ND	20
Napthal <i>ene</i>		ND	1
Ni trobenzene		ND	4
N-nitrosodimethylami	ne	ND	40
N-nitrosodiphenylami	ne	ND	8
N-nitrosodi-n-propyl		ND	6
bis-(2-ethylhexyl) p		ND	12
Butyl benzyl phthala	te	ND	18
Di-n-butyl phthalate		ND	5
Di-n-octyl phthalate		ND	. 10
Diethyl phthalate		ND .	4:
Dimethyl phthalate		ND :	8.
Benzo (a) anthracene		ND	77 10
Benzo (a) pyrene		ND +	14
3,4-benzofluroanthen	e	ND	20
Benzo(k)fluroanthene		ND	20
Chrysene		ND	8
Acenaphthylen e		ND	2
Anthracen e		ND	4
Benzo(ghi)perylene		ND	14
Fluorene		ND	4
Phenanthrene		ND	6
Dibenzo(a,h)anthrace		ND	16
Indeno(1,2,3-cd)pyre	ne	ND	14
Pyren e		ND	6
Dieldrin		ND	50
4,4'-DDD		- מא	50
4.4'-DDT		ND	50
Endosulfan sulfate		ND	50
Endrin aldehyde		ND	50
Chlordane		ND	50
Toxaphene		ND	50

Sample I.D. No: 56528 PJKS, 1-MW-1 Page 3 of 3

GW-1, ES 12:30

01-86-1126

APPL Sample No: A005-05466W

Method 625 Results con't

Concentration wg/l	Detection Limit µg/l
ND .	50
ND	50
ND	50
. ND	50
ND	50
ND	50
ND .	50
· ND	50
ND	100
ND	100
ND	100
ND	100
ND .	. 100
ND	_ 100
	ND ND ND ND ND ND ND ND ND ND

* ND = None Detected

Checked By_

APPL, INC.

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.

4167 NORTH MOTEL DRIVE, SUITE 102 . FRESNO. CALIFORNIA 93711 . PHONE (209) 275-2175

Engineering Science 1687 Tullie Circle, S Atlanta, Georgia 303 Attn: Johnny Adamson		Sample Date: 01/14/86 Report Date: 01/23/86 Page 1 of 3
01-8	, ES 3:45 6-1127	Date Received: 01/16/86
APPL Sample No: A005	-05467W	Date Extracted: 01/20/86
Method_625_Results:		Revised Report
<u>Acid_Cmpds</u>	Concentration ug	/l Detection Limit pg/l
2,4,6-trichloropheno	1 ND*	6
p-chloro-m-cresol	ND	6
2-chlorophenol	ND	2
2,4-dichlorophenol	ND	1
2,4-dimethylphenol	ND	4
2-nitrophenol	ND	3
4-nitrophenol	ND	40
2,4-dinitrophenol	ND	-: 42
4,6-dinitro-o-cresol	ND	· 25
Pentachlorophenol	ND .	3
Phenol	ND	- 15
Base/Neutral_Cmpds	<u>Concentration PQ</u>	/l Detection Limit vg/l
Acenaphthene	ND	· 4
Benzidin e	ND	80
1,2,4-trichlorobenze	ne ND	3
Hexachlorobenzene	- ND	4
Hexachloroethane	ND	. 2
bis (2-chloroethyl)		4
2-chloronaphthalene	ND	4
1,2-dichlorobenzene	ND	2
1,3-dichlorobenzene	ND	4
1,4-dichlorobenzene	ND	4
3,3'-dichlorobenzidi		20 .
2,4-dinitrotoluene 2,6-dinitrotoluene	ND ND	. 4
2,6-dinitrotoldene 1,2-diphenylhydrazin		6
(azobenzene)	ND ND	•
Fluoranthene	ND	8
4-chlorophenyl pheny		6
4-bromophenyl phenyl		6
		_

Sample I.D. No: 56528 PJKS, 1-MW-2 Page 2 of 3

GW-1, ES 3:45

01-86-1127

APPL Sample No: A005-05467W

Method 625 Results con't

Color of the Color

Base/Neutral_Cmpds	Concentrat	ion_vg/l	Detection Limit_rg/l
bis-(2-chloroisoprop	yl) ether	ND	4
bis-(2-chloroethoxy)		ND	4
Hexachlorobutadiene		ND	6
Hexachlorocyclopenta	dien e	ND	40
Isophorone		ND	20
Napthal ene		ND	1
Nitrobenzene		ND	4
N-nitrosodimethylami	ne	ND	40
N-nitrosodiphenylami		ND	8
N-nitrosodi-n-propyl		ND	<u>-</u>
bis-(2-ethylhexyl) p		ND	12
Butyl benzyl phthala		ND	18
Di-n-butyl phthalate		ND	5
Di-n-octyl phthalate		ND	10
Diethyl phthalate		ND	4
Dimethyl phthalate		ND	`
Benzo (a) anthracene		ND	10
Benzo (a) pyrene		ND	14
3,4-benzofluroanthen	6	ND '	20
Benzo(k)fluroanthene		ND	20
Chrysen e		ND	8
Acenaphthylene		ND	2
Anthracen e		ND	4
Benzo(ghi)perylene		ND	14
Fluorene		ND	4
Phenanthrene		ND	6
Dibenzo(a,h)anthrace	ne	ND	16
Indeno(1,2,3~cd)pyre	ne	ND	14
Pyrene		ND	6
Dieldrin		ND	50
4,4'-DDE		ND	50
4,4'-DDD		ND	50
4,4'-DDT		ND	50
Endrin		ND	50
Endosulfan sulfate		ND	50
Endrin aldehyde		ND	50
Ch1ordane		ND	50
Toxaphene		ND	50

Sample I.D. No: 56528 PJKS, 1-MW-2 Page 3 of 3

GW-1, ES 3:45

01-86-1127

APPL Sample No: A005-05467W

Method 625 Results con't

<u> Base/Neutral Cmpds</u>	Concentration vg/l	Detection Limit 49/1
α-BHC	ND	50
β−BHC	ND	50
&-BHC	ND	50
Lindane	ND	50
Endosulfan I	П	50
Endosulfan II	ND	50
Heptachlor	ND	50
Aldrin	ND	50
PCB 1016	ND	100
PCB 1221	ND	100
PCB 1232	ND	100
PCB 1242	ND	100
PCB 1248	ND ··	-: 100
PCB 1254	ND	100
PCB 1260	ND -	100

* ND = None Detected

Checked By Pamilia Crepa

APPL, INC.

KERCECCER BESCHELLE WINDOWS BECERFEE SOURCE

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.

Engineering Science		Sample Date: 01/15/86
1687 Tullie Circle, Suite 105		Report Date: 01/23/86
Atlanta, Georgia 30329		-,
Attn: Johnny Adamson		Page 1 of 3
• • • • • • • • • • • • • • • • • • • •		
Sample I.D. No: PJKS, 01-86-113	50	Date Received: 01/17/86
2-MW-3, GW-1 E9	3	
APPL Sample No: A005-05468W	מ	ate Extracted: 01/20/86
Method_625_Results:		Revised Report
Asid Conde	tion would	Detection limit would
Acid Cmpds Concentrat	FIOU FOYT	<u>Detection_Limit_rg/l</u>
2,4,6-trichlorophenol	ND*	6
p-chloro-m-cresol	ND	6
2-chlorophenol	ND	2
2,4-dichlorophenol	ND .	<u> </u>
2,4-dimethylphenol	ND	4
2-nitrophenol	ND	3
4-nitrophenol	ND	40
2,4-dinitrophenol	ND	. 42
4,6-dinitro-o-cresol	ND	25
Pentachlorophenol	ND	3
Phenol	ND	- 15
		77.
Base/Neutral Cmpds Concentrat	<u>tion_ra/l</u>	<u>Detection Limit µg/l</u>
Acenaphthene	ND	4
Benzidine	ND	80
1,2,4-trichlorobenzene	ND	3
Hexachlorobenzene	ND	4
Hexachloroethane	ND	2
bis (2-chloroethyl) ether	ND	- 4
2-chloronaphthalene	ND	4
1,2-dichlorobenzene	ND	2
1,3-dichlorobenzene	ND	_ 4
1,4-dichlorobenzene	ND	4
3,3'-dichlorobenzidine	ND	20
2,4-dinitrotoluene	ND	6
2,6-dinitrotoluene	ND	4
1,2-diphenylhydrazine	ND	6
(azobenzene)	ND	-
Fluoranthene	ND	8
4-chlorophenyl phenyl ether	ND	6
4 b b 1 - b 1 - b b	AUD	-

ND

4-bromophenyl phenyl ether

Sample I.D. No: PJKS 01-86-1130 2-MW-3, GW-1, ES Page 2 of 3

APPL Sample No: A005-05468W

Method 625 Results con't

Base/Neutral Cmpds	Concentra	<u>llen_eq/l</u>	Detection Limit 49/1
bis-(2-chloroisoprop	yl) ether	ND	4
bis-(2-chloroethoxy)		ND	4
Hexachlorobutadien e		ND	6
Hexachlorocyclopenta	diene	ND	40
Isophorone		ND	20
Napthalene		ND	1
Nitrobenzene		ND	4
N-nitrosodimethylami	ne	ND	40
N-nitrosodiphenylami	ne	ND	8
N-nitrosodi-n-propyl	amine	ND	ద
bis-(2-ethylhexyl) p		ND	12
Butyl benzyl phthala	te	ND	18
Di-n-butyl phthalate	!	ND	5
Di-n-octyl phthalate		ND	10
Diethyl phthalate		ND	<u>4</u>
Dimethyl phthalate		ND	- 8
Benzo (a) anthracene	!	. מא	10
Benzo (a) pyrene		מא	14
3,4-benzofluroanthen	e	ND	20
Benzo(k)fluroanthene	!	ND	20
Chrysen e		ND	8
Acenaphthylene		ND	2
Anthracene		ND	4
Benzo(ghi)perylen e		ND	14
Fluorene		ND	4
Phenanthrene		ND	6
Dibenzo(a,h) anthrace		ND	16
Indeno(1,2,3-cd)pyre	ne	ND	14
Pyrene		ИD	6
Dieldrin		ND	50
4,4'-DDE		ND	50
`4,4'-DDD	•	ND	50
4,4'-DDT		ИD	50
End ron		ND	50
Endosulfan sulfate		ND	50
Endrin aldehyde		ND	50
Chlordane		ИD	50
Tox aphene		ND	50

Sample I.D. No: PJKS 01-84-1130

Page 3 of 3

2-MW-3, GW-1, ES

APPL Sample No: A005-05468W

Method 625 Results con't

Base/Neutral Cmpds	Concentration_vg/l	<u>Detection Limit µg/l</u>
α−ВНС	ND	50
B-BHC	ND	50
S-BHC	ND	50
Lindan e	ND	50
Endosulfan I	ND	50
Endosulfan II	· ND	50
Heptachlor Programme 1	· ND	50
Aldrin	ND	50
PCB 1016	ND	100
PCB 1221	ND	100
PCB 1232	ND	100
PCB 1242	ND	100
PCB 1248	ND	. 100
PCB 1254	, ND	_ 100
PCB 1260	ND .	109

* ND = None Detected

Checked By Panica Cooper

ENGINEERING-SCIENCE

CHAIN OF CUSTODY RECORD

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100 SEE 100	·			Received by: (Signature)					•						e		•			REMARK8	(404) 325-5923	Sulte 106 Atlanta, GA, 30329	ENGINEERING-BCIENCE, INC.	BHIP TO:
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APPL, INC.

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.

4167 NORTH MOTEL DRIVE, SUITE 102 . FRESNO, CALIFORNIA 93711 . PHONE (209) 275-2175

Engineering Science 1687 Tullie Circle, Sc Atlanta, Georgia 3032 Attn: Johnny Adamson		Sample Date: 01/16/86 Report Date: 01/23/86 Page 1 of 3
Sample I.D. No: PJKS, GW-1,	2-MW-7, ES 01-86-1177	Date Received: 01/21/86
APPL Sample No: A005-0	05474W	Date Extracted: 01/22/86
Method 625 Results:		Revised Report
Acid Cmpds	<u>Concentration Pg</u>	/l Detection Limit rg/l
2,4,6-trichlorophenol	ND*	6
p-chloro-m-cresol	ND	6
2-chlorophenol	ND	2
2,4-dichlorophenol	ND	<u> </u>
2,4-dimethylphenol	ND	4
2-nitrophenol	ND	3
4-nitrophenol	ND	40
2,4-dinitrophenol	ND	42
4,6-dinitro-o-cresol	ND	25
Pentachlorophenol	ND ·	<u> </u>
Phenol	ND	15
Base/Neutral Copds (<u>Concentration μο</u>	/l Detection Limit rg/l
Acenaphthene	ND	4
Benzidine	ND	80
1,2,4-trichlorobenzene	e ND	3
Hexachlorobenzene	ND	4
Hexachloroethane	ND	2
bis (2-chloroethyl) e	ther ND	4
2-chloronaphthalene	ND	4
1,2-dichlorobenzene	ND	2
1,3-dichlorobenzene	ND	4
1,4-dichlorobenzene	ND	4
3,3'-dichlorobenzidine	e ND	20
2,4-dinitrotoluene	ND	6
2,6-dinitrotoluene	ND	4
1,2-diphenylhydrazine	ND	6
(azobenzene)	. ND	
Fluoranthene	ND	8
A-chlorophonyl phonyl	other . ND	•

· ND

ND

4-chlorophenyl phenyl ether

4-bromophenyl phenyl ether

Sample I.D. No: PJKS 2-MW-7, GW-1 Page 2 of 3 ES 01-86-1177

APPL Sample No: A005-05474W

Method 625 Results con't

Base/Neutral_Cmeds	Concentra	tion_vg/l	Detection_Limit_rg/l
bis-(2-chloroisoprop	yl) ether	ND	4
bis-(2-chloroethoxy)		ND	4
Hexachlorobutadiene		ND	6
Hexachlorocyclopenta	di en e	ND	40
Isophoron e		ND	20
Napthalene		ND	1
Nitrobenzen e		ND	4
N-nitrosodimethylami	ne	ND	40
N-nitrosodiphenylami	ne	ND	8 ;
N-nitrosodi-n-propyl	amine	ND	6
bis-(2-ethylhexyl) p	hthalate	ND	12
Rutyl benzyl phthala	te	ND	18
Di-n-butyl phthalate	•	ND	. 5
Di-n-octyl phthalate	•	ND	10
Diethyl phthalate		ND .	4.
Dimethyl phthalate		ND	• 8
Benzo (a) anthracene	•	ND .	10
Benzo (a) pyrene		ND	14 •
3,4-benzofluroanthen		ND	20
Benzo(k)fluroanthene	•	ND	20
Chrysen e		ND	8
Acenaphthylene		ND	2
Anthracene		ND	4 -
Benzo(ghi)perylene		ND	14
Fluorene		ND	4
Phenanthrene		ND	6
Dibenzo(a,h)anthrace		ДИ	16
Indeno(1,2,3-cd)pyre	ene	ND	14
Pyrene		ND	_6
Dieldrin		ND	50
4,4'-DDE		ND	50
4,4'-DDD		ND	50
4,4'-DDT		ND	50
Endrin		ND	50
Endosulfan sulfate		ND	50
Endrin aldehyde		ND	50
Chlordane		ND	50
Toxphen e		ND	50

Sample I.D. No: PJKS 2-MW-7, GW-1 Page 3 of 3 ES 01-86-1177

APPL Sample No: A005-05474W

Method 625 Results con't

Base/Neutral_Cmpds	Concentration_vg/l	<u>Detection_Limit_vq/l</u>
α-BHC	: ND	50
B-BHC	ND	50
S-BHC	· ND	50
Lindane	МD	50
Endosulfan I	ND	50
Endosulfan II	ND	50
Heptachlor	ND	50
Aldrin	ND	50
PCB 1016	ND	100
PCB 1221	ND .	100
PCB 1232	ND	100
PCB 1242	П	100
PCB 1248	ND .	, 100
PCB 1254	ND	100
PCB 1260	ND	100

* ND = None Detected

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CHAIN OF CUSTODY RECORD

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	56528		D.KS.	O							19 EN		
1.0	AMPLE	1	BAMPLER(8): (Bignature)	٩ ٩		\	\		<u>\</u>	<u> </u>	Attent	Sulle 105 Allenia, GA. 30329	
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Results from ES for Metals and Inorganic Parameters

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aboratory Supervisor Approval: Page Report Dilution Factor OC Report No. Bhrows Moisture Environmental Quality Parameters Soil (ug/g) (ug/kg) ANALYTICAL RESULTS SUMMARY Water (ug/L)/ Sample Matrix: Z 98- 51-PJKS Denver 82595 US AF Engineering-Science Date Collected ES Job No. Client No. Project Client

Other

Date Received

L-414

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| 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 10

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	Field Sample No. Lab Sample No. 102 102 1036 1036 100 100 100 100 100 100 100 100 100 10	G ITOS Phambles TKN	21.0 Washo 20.005 1.1	0 340 40,065 40,1								,				22 /2 /6 /16	5.04 > CV 186435.1 8 PA 413.1 8 PA 11.0.3 SPA 420.1 8PA 351.3
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If a moisture is reported, results are presented on a dry-weight basis.

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		c Repo	Di¥ntion *Moisture	<u>.</u> 0	5	S									<u> </u>
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	SUMMARY Parametera		Z) § 2			٦									
			Water (ug/L) () () Soil (ug/Kg) (ug/Kg)	046	0,1%	Ħ	<1.0	41.0							
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W.	ANALYTICAL Environmental	Sample	2)]] 5	7	3	1	٦		_	-	ļ	_	·	-
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	. uce	56528 USAF 87KS Denver		1	1.25	V-1 ES	1 8	1-1,5							
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	Engineering-Science	ES Job No. Client Project	Client No. Date Collected	ld Sami	PTKS 2 mw-3 GW-1 ES	PTK4, 10-MW-5, 6-W-1 ES	PTKS 4-mw-6, GW-1, ES 01-86-1132	5-4-MW-6-W-7,ES							
	Eng i	ES Job P Client _ Project	Clie Date	Field	77										
k-a						L-	-415	i							

of it is moisture is reported, results are presented on a dry-weight basis.

Note A: No oil of greese sample provided. (GLA) 15931111

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Analytical Method

8593111

Date Analyzed

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HOLPE 9/3 damon A/B Ø aboratory Supervisor Approval: Page / (Johnny R. Dillution Factor C Report No. 21.6 3.5 Phenolis TKN Moisture 0.84 K T t705 Environmental Quality Parameters 1 8 \$ // Soil (ug/g) (ug/Kg) Z/ Water (ug/L) ANALYTICAL RESULTS SUMMARY 0.7 १ 04.6 Sample Matrix: / / Other NOX 700 **50.** I 40.01 ۵: ا 01-86-1178. 0.026 200 87K5.2-MW.7.6W-1,ES 01-86-1197 Lab Sample No. PJK6. 4- - mw-C, (-w-1 ES 101-86-1179 93-91-1 98-41-1 PTKS. Denver 56528 77K5 4-mud (Lury ES スタアア Engineering-Science Field Sample No. Date Collected Date Received ES Job No. Client No. Project Client

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EPH 301 | EPH 352. 1 | EPP 413. 1 | EPP 160, 3 | EPP 410. 1 | EPP 351. 3

Analytical Method

Date Analyzed

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If a moisture is reported, results are presented on a dry-weight basis.

Note A: No phenolics samples provided

19. TO 5 samples not provided

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State No. 56518 Stroject P JICS Client No. Date Collected 14 Quate Received 15 Quate 15 Qu	Plant Jan.86	ซึ่	mple 1	Sample Matrix:	Mater (ug/L) (mg/L) Soil (ug/g) (ug/Kg)	ma/kg)		8 2 2 8	C Report No. Laboratory Supervisor Approval: Lohnny A. Odomo C Dilution Factor *Moisture	Superv	1 sor 1	Odomo		
Field Sample No.	Lab Sample No.	₹	C	Ha	S				-			_		
Parc 1-1112-1 FW-155 01-86- 1126	01-86-1126	ŧ	ــا	0.00 मिका-0	3.00.Q		·			1		-		
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Laboratory Supervisor Approval: of Page (Dilution Factor & Report No. Cohom *Moisture Water (ug/L) (mg/ Soil (ug/g) (ug/Kg) ANALYTICAL RESULTS SUMMARY Metals Sample Matrix: Other B ی Plant 16 you. 56528 PJKS USAL Engineering-Science Date Collected Date Received ES Job No. Client No. Project Client

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2-12												Ana	Analytical Method
1 ⁷ 3KS						'						Date	Anal
	13K5 2-MW-3 QJ-1, ES 01-86-1130 K0002 (40.11 KU-0002 (0.002)	1755,2-MW-3,QU-1,ES 01-86-1130 Kalooz (do. 11 cd. dooz (di. 02)	P3K5,22-MW-3,QU-1,ES O1-86-1130 60,002 (10.000002 (10.00002 (10.00002 (10.00002 (10.0002 (10.0002 (10.0002 (10.	P3K5,22-MW-3,QJ-1,ES O1-86-1130 K0002 (0.11 KU. 0002 (0.002	P3K5,22-MW-3,QJ-1,ES O1-86-1130 60002 (8.1) 60.0002	17K5,22-MW-3,QU-1,ES O1-86-1130 60002 (0.1) (40.0002 (0.1) (1.30 (0.002) (0.1) (1.30 (0.002) (0.1) (1.30 (0.002) (0.1) (1.30 (0.1) (P3K5,22-MW-3,QJ-1,ES O1-86-1130 60,002 60.11 40.000 60,002						

are presented on a dry-weight basis.

P = Inductively Coupled Plasma II - Ilydride Vapor AAS

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Approval: of 22.5 Report Page Aboratory Supervisor & Report No. Dilution Factor 1 ohnum *Moisture Ä Soll (ug/g) (ug/kg ANALYTICAL RESULTS SUMMARY Water (ug/L) Metale Sample Matrix: Other ر ح ž 56538 Engineering-Science PJKS ISAF Date Collected Date Received Client No. ES Job No. Project Client Ė,

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	Lab Sa	8 - 10	8-10													
	Field Sample No. Lab Sample No. As Col Hay Pb Se.	531-0	7755 4-1110 6. C. 12. Ex (11-36-11 33 Co. 002 50.02 50.00 Co. 12													hod
	mple N	200	777	+									-		lyzed	al Met
	ld Sa	15 4-W	15.45 15.45												Date Analyzed	Analytical Method
	Fie	3	12												a	\$

G = Graphite Furnace AAS

P - Inductively Coupled Plasma

C - Cold Vapor ANS

II - Hydride Vapor AAS

 If & moisture is reported, results are presented on a dry-weight basis.

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F - Flame AAS

Page / of / Approvate Laboratory Supervisor QC Report No. Dilution Fac *Moisture Environmental Quality Parameters / / Soil (ug/g) (ug/kg) ANALYTICAL RESULTS SUMMARY Water (ug/L Sample Matrix: PJKS Denver ES JOB NO. 56528 いろみ下 Engineering-Science Date Collected Client No. Project Client Date

Date Received /	95-91-	`	/ Other	L	-	•	1	
		1	{			2 4		
Field Sample No.	Lab Sample No.	NC	N03	046	705	Phenolica		Notes
PTK 2, mw-3 Ga-1 25 DI-86-1130	01-86-1130	151.0	2,0	0'1'	540	4.0 <1.0 540 <0.05		
17K 10-mu-5, GW-1 ES 01-86-1131	01-86-1131	0.07	3,0	\$	2.5	5000		Œ
27KS 11-mm-6, Cm-, 35 01-86-1132	01-86-1132	0011	1.8.	41.0	370	Ø		Ð
15K5 4-mm-3cm-3=1 61-86-1133	61-66-1133	10.00)	<1.0	370	B		Q
Date Analyzed	Σ	1/1	11+91	127	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	ار ا		
Analytical Method		5PH 3541	1.628AB	5PH 354, 18PA353.1 8PA 413.1 8PA 160,38PA430.	5PA 160.3	1.084 AB	•	
* If * moisture is	is reported, results	!	sented or	are presented on a dry-weight basis	ight bas	is.	(V) (V	

Note A: No oil & gierse sample provided glass

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roject YJKS Nanver	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Samp V	Sample Marrix:	water (ug/L)		1 110	Dillution Factor	or			
cted	95-91-1	7	_/ soil	Soil (ug/g) (ug/kg)	g/Kg)	. *Moisture	ture			-	
ate Received	1-17-86	7	_/ Other			2.31					
Field Sample No. Lab	Lab Sample No.	NB	NON	04G	tos	Phenolics	TKN			Notes	
57.KC \- 64.7 7 (42.1 12) 0	18-11-38-10	811.0	-:-	41,0	8	0.00 ≯	10.1			\approx	
		0.026	<0.1	Q () >		H	21.6			4/4	
755 4-m-1-1/20-185 11-86-1179		<0.0/1	<0.1	ot05	\$	K	3,5			B/B	
Date Analyzed	E	12/	/22	12/	2/4	120	12	V			
Analytical Method		E17A 354.	8PA352.1	5,74 3x4, 8PA352,18PA 413.1 8PA 160,3 8PA 420.1 8PA 351.3	8PA 160,3	584 4W.1	E188 #13				
* If & moisture is repo	reported, results are	S are provided by	esented or	phenolics samples provided to, these OKO	ight basi	3. to/	+ hese	3/4	-	S. S. S.	(3
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Environmental Quality Parameters

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plintion Factor Bernand • Moisture Water (ug/L) Soil (ug/g) Sample Matrix: Other 981 Denver カノー して いなみに

Date Received

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Date Collected

Client No. Project

Field Sample No.	Lab Sample No.	202	NO3	0 & G	1:05	Phenolics	1 2 3			Notes
9/11-98-10 02 1-18/1-1907 5/10	1	17.619	3.8	0117	<1,0 (1) 840 (40.005 1.1	40.005	- :			
7/1-18-18-18-18-18-18-18-18-18-18-18-18-18		*t. 4 9980.0	4.7	41.0	< 1.0 340 40.0cs	40.065	40,1			
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Date Analyzed	Σ	1/2/	\$1+32	125	12	<u> 2</u>	16/			
Analytical Method		20H 354	1.128.493	STA 413.	8.128. 49 1.004.93 8.03 8.04 18.1 814 10.2 814.30.1 SPA 351.3	504430.1	BA 351.3	•		
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* If * moisture is reported, results are presented on a dry-weight basis.

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	Sample Matrix:	January N. Walk
Client No.	K/ Water (ug/L) (mg/L)	bilution Factor
Date Collected 15 Jan 86	Soil (ug/g) (ug/kg)	*Moisture
	/ / Other	

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Field Sample No. Hay Pp Se.	Lab Sample No.	As	3	Hay	Pp	Se								
2 1/5 4-m 2-6 14 - 175	A1.86-1(32	\$00°D	70.02	7900.6>	2010>	<0.00Z		,					1	
2xx 4- mr. 1 612- 86 11-86- 11 33 60:00 50:00 60:00 CO:12 60:00	01-86-1133	\$ \$ \$	70.05 40.05	\$0.0x	20,05	49.002	-							T
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Date Analyzed	Σ	7	100	र्त	1/00	18/			7	J	V	V	1	V
Analytical Method	*	206.13	213.1	245.1	239.1	336.3	_ {							
• If • moisture is reported, results	is reported, results	ts sis.	*	# # ·	Flame AAS	F = Flame AAS C = (C = C	old Va •	Cold Vapor AAS G = Graphite Furi ; P = Inductively Coupled Plasma	S G tively	: = Gra / Coupl	⊟ Graphite Coupled Pla	Furnace	e AAS
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are presented on a dry-weight basis. * If & moisture is reported, results

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Laboratory Supervisor Approval: ا و Page Report Dijution Factor OC Report No. Johnson *Moisture Soil (ug/g) (ug/Kg) ANALYTICAL RESULTS SUMMARY Water (ug/L) (Metal8 Other Sample Matrix: 图 PJKS ES JOD NO. 56528 1 SAF Engineering-Science Date Collected Date Received Client No. Project Client

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Pb	8	2002	2002							1/3	239.1
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7	7	20.00	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~							(s/2)	2134
As	50.0X	₹0.0 %	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \							4	E1907
Lab Sample No.	4411-98-11	8+11-78-1(6+11-98-10							Σ	*
Field Sample No.	PTKS 2-1010-7- (201, 85 101-86-1177)	8-11-78-10 53,1-43,4-4-4-P. 2XI	P+11-78-10 53,1-62,6-m-+ 2419						•	Date Analyzed	Analytical Method

- Inductively Coupled Plasma reducested. II - Hydride Vapor AAS are presented on a dry-weight basis. 8593111

Note A: Cadmium on Sample 1177 not request

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- of -Notes Laboratory Supervisor Approval: Paye 🕻 Report Dilution Factor CC Report No. Johnson, *Moisture Environmental Quality Parameters Water (149457 (Mg/L) (pa/kg) (ng/kg) ANALYTICAL RESULTS SUMMARY 9 10Y 6.2 We have the to the ported, results Sample Matrix: Other X 0.46 Lab Sample No. | NO. 104-86-1113 0,38 9611-98-40 Date Received 24/25 april 86 4111.98.40 Date Collected 23/24 2,GW·3 CW-3 5-MD-4,6W-3 Engineering-Science Field Sample No. . 3E-ES Job No. Client No. S-MW-S Project Client

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Analytical Method

Date Analyzed

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ANALYTICAL RESULTS SUMMARY Metals

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Page	Report

ES JOD NO. 5652 &
Project PJKS Dennes
Client No.
Date collected 28/24 Upril 86
Date Received 24/25 Chulble

	Meren mg/l	(ug/Kg)	
Matrixs	Water (wg/t)	Soil (ug/g)	Othor
mple M	X		•

QC Report No.	Jaboratory Supervisor Approval:	Cohmmy K. Wdamon	Dilution Factor	*Moisture	
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4-mw-6, Gw-6 04-86-1115 A	1111 00 1	1-mu-1-64-3 04-86-1128	1-50-2 04-86-1136 1-mu-2 04-8 71136 1-50-2 04-86-1138 1-50-2 04-86-1139	EC11-98-1	F-611-98-1
222	10	282	2922	0800	2929
4.mw.6, 6w.5 04.86.1115 A	717.3	CW 3	15 to 3	4444	
75.60		L + 100	-mu-16-1-	333	EW-3

If * moisture is reported, results
are presented on a dry-weight basis.

F = Flame AAS C = Cold Vapor AAS G = Graphite Furr II = Hydride Vapor AAS P = Inductively Coupled Plasma

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25.50 B/C

of Laboratory Supervisor Approval: Page Report Dilution Factor & Report No. adram *Moisture ¥... 1 Water (ugrC) $\left(ng/k \right)$ (ug/kg) ** ANALYTICAL RESULTS SUMMARY Metal8 Sample Matrix: Other X ES JOD NO. 56528 Engineering-Science' Date Collected Date Received Client No. Project 7 Client

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1 Pb for 10, co T1 p.c.	40,23	_			>						
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9 9 9 9	<0.0>	1			>		-				
1000 H	<0.13	-			د						
Pb	4013	60,13	20113	(0)	60,B						
CA	0.0	0.0	0,0	9.0	⊘						
Lab Sample No. (01-86-1086	1130	4611	1135	9611						
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Sample	<u> </u>	3-7	7-7	1 - (1.5						
Field Sample No.	1-SW-1	2-M12-3,CW-1 01-86-1130 1201	10,0 ff11-88-101-01, f-wm-c	1.CD > 1.CD 3 104.86. 1135 40.01	10.0 3611-38.40 5 CD. 5- CJM-1						

G = Graphite Furnace AAS P = Inductively Coupled Plasma C = Cold Vapor AAS = Hydride Vapor AAS F = Flame AAS are presented on a dry-weight basis. * If & moisture is reported, results

Analytical Method

Date Analyzed

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Paye of 2 Laboratory Supervisor Approval: Dilution Factur Mohmmy CC Report No. Environmental Quality Parameters ANALYTICAL RESULTS SUMMARY Water (mg/L) mg// Sample Matrix: 1355× ES JOB NO. 56538 Enginearing-Science Client Libe Date Collec Date Receiv Client No. Project

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. *Moisture		low mudd	• 1		
ug/kg)		(Very	· -		
Soil (ug/g) (ug/kg) Other	705			463	
// Soil // Other	N N03	\bigvee	1.32	1,33	
7	TKN	1,84			
11 april 86	Lab Sample No. TK	CHO1 - 98-100	3:45, 1mw2 Ou-86 - 1074	5+01-98-101 SMS 100:0	
Date Collected Date Received 11 Ox	Field Sample No.	10/66, 2:25, 201033 OU-86 - 1073	3:45, IMWZ	5:00, Smus	
Da te Da te	Fig	🕇		2	

4/11/86 3:15 4 MW 4 GUZLOU - 86 - 1092

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Date Analyzed	E	3/ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	7=	77				
Analytical Method		8.12E	352.1	8.091			-	
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Results from Radiation Scan

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Sample Number	Collection Date	Analysis	Results pCi/L ± 2 G
MW-6 GW-1	1/15/86	Gross Alpha Gross Beta 228Th 230Th 232Th Ge(Li) Scan: 226Ra	180 ± 60 200 ± 10 1.13 ± 0.06 0.56 ± 0.05 0.80 ± 0.05
MW-6 GW-2	1/15/86	Gross Alpha Gross Beta 228Th 230Th 232Th Ge(Li) Scan: 226Ra	130 ± 30 250 ± 20 0.65 ± 0.06 0.30 ± 0.04 0.48 ± 0.04 80 ± 10
MW-4 GW-1	1/16/86	Gross Alpha Gross Beta 228Th 230Th 232Th Ge(Li) Scan: 226Ra	250 ± 20 120 ± 20 8.2 ± 0.4 6.5 ± 0.4 5.8 ± 0.3 120 ± 10
MW-5 GW-1	1/16/86	Gross Alpha Gross Beta 228Th 230Th 232Th Ge(Li) Scan: 226Ra	270 ± 20 160 ± 30 4.1 ± 0.2 2.2 ± 0.2 2.8 ± 0.2 140 ± 10

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	A 6N 94 0003	18601075	č š	CHEMISTRY DATA	W T (DIS)	13. C. M.		C IDENTIFICATION	
	socia AFP PJKS, Waterfor, Co	0253E	WT OR VOL ANALYZED	so so come.	WT (SUS)			RHL NO.	
	SUBM (01: 21-MAT-80		CHEMICAL		SEP			BASE CODE	
	AFB APBGF Brooks AFB		SPIKE RHL NO.) A	VOL SPIKE ADDED			DATE	. 64
	ANALY Breek Greek states I about Des	Som D-1 Lodged by F.	REMARKS	ALPHA-SETA	CHEM	10/000	ر ر	DATE	9
		64000	E RESULTS	ACTIVITY +	UNITS	NUCLIDE	(AGTIVITY	FARON -	UNITS
	COUNTER AND EFF	~	GROSS ALPHA DIS	MA -1.8 - MOM	ייכוור			+	
	TIME AND TOT CTS	CHC/21/00/	GROSS ALPHA SUS	+ + PHA	PCIAL			+	
	TIME AND BKG CTS	1201/1001	GROSS ALPHA (URINE)	+ + + + + + + + + + + + + + + + + + +	PCI/24H			+ 1	
	NET CPM		GROSS ALPHA	+ + + + + + + + + + + + + + + + + + +	PCI/GD			+	
	DATE AND TIME START	10 24-186	GROSS ALPHA	+ + H4	PCI/GA			+ 1	
L			GROSS ALPHA	PHA +	PCI/M3			•	ļ
430	COUNTER AND EFF		GROSS BETA DIS	41.9 -	PCI/L			•	
	TIME AND TOT CT		OROSS BETA SUS	+	PCIAL			•	
	TIME AND BKG CTS		GROSS BETA	TA . +	PC1/24H			+ 1	
	NET CPM		NET BETA (URINE)	*	PC1/24H			+	
	DATE AND TIME START		GROSS BETA (SOIL)	+ -	PCI/GD			+ 1	
			GROSS BETA		PCI/GA			• •	
K	RADON	CELL No.	GROSS BETA (AIR FILTER)	TA +	PCI/M 3			+	
140	DATE COUNTED	TIME STARTED	SAMPLE WT DIS	u	MG/L			•	
ch	TOTAL TIME	UNCORRECTED SAMPLE ACT	SAMPLE WT	ı	MG/L			+ 1	
·e/	TOTAL COUNTS	TIME COR FACTOR	SAMPLE VOL	م	Z.			•	
+/	GPM	CORRECTED SAMPLE ACT	SAMPLE VOL	70 82	E 2			+ 1	
,	BKQ CPM	CONTROL ROOM ACTIVITY	SAMPLE						
	NCPA	NET SAMPLE ACTIVITY	MECOVERY		*	COUNT : O	JUN BOB	B RLFR	ز
				100 Sept. 100 Se	7475	P. BARTESONS	Soal	HESALYSED OF	3

	with.		\mathbf{l}	TRY	**		\vdash	
A		18401075	B DATA		IDISI		CIDENTIFICATION	2
SOCI APP POTES, Waterlan, Co.		0253D	WT C? VOL ANALYZED	600 ml	WT (SUS)		NO	
SUB! Col: 21-MAY-86	Rec: 03-JUN-86	- 98-KNC	CHEMICAL RECOVERY		SEP		BASE	
AFB APBGF Brooks AFB	WATER 1X 79235	535	SPIKE RHL NO	ADA	VOL SPIKI ADDED		DATE REC	Α V
ANA BOUL Crek St. 1	ad bassol	F-1	REMARKS	GAMMA	3 NOS	CONP 6/5/86	BY DATE COMP	A.
D COUNTING	15/1	2618400	E RESULTS	ACTIVITY + ERROR	UNITS	NUCLIDE	ACTIVITY + EPROR	UNITS
COUNTER AND EFF			GROSS ALPHA DIS	+ 1	PCIAL	252-17	- 9/1/2	18.6
TIME AND TOT CTS			GROSS ALPHA SUS	+ 1	PCI/L		<83 -	٥
TIME AND BKG CTS			GROSS ALPHA	+ 1	PCI/24H		- 957	ی
NET CPM			GROSS ALPHA (SOIL)	+	PCIIGD	~		5
DATE AND TIME START			GROSS ALPHA	+	PCIIGA	30-95	415	×
			GROSS ALPHA	+	PCI/M ³		- 8>	, , , , , , , , , , , , , , , , , , ,
COUNTER AND EFF			GROSS BETA DIS	+ 1	PCI/L		- 0%>	,
TIME AND TOT CT			GROSS BETA SUS	+ 1	PCI/L	Earles	- 67	<i>\\</i>
TIME AND BKG CTS			GROSS BETA (URINE)	+	PC#24H		- 2.67	//
NET CPM			NET BETA (URINE)	+ 1	PC1/24H	1813	< 30	١
DATE AND TIME START			GROSS BETA (SOIL)	•] •	PCI/GD	2	- 67	<i>\(\)</i>
			GROSS BETA	+ 1	PCI/GA	6737	- 47	2
RADON	CELL NO.		GROSS BETA (AIR FILTER)	+ 1	PCIIM 3		- 2/7	<u>ا</u> (
DATE COUNTED	TIME		SAMPLE WT DIS		MG/L	062-57	C1 - 0°	11
TOTAL TIME	UNCORRECTED SAMPLE ACT		SAMPLE WT SUS		MG/L	,	• 1	
TOTAL COUNTS	TIME COR FACTOR		SAMPLE VOL		W		+ 1	
GROSS CPM	CORRECTED SAMPLE ACT		SAMPLE VOL IAIR FILTERI		м3		+ 1	
BKG CPM	CONTROL ROOM ACTIVITY		SAMPLE				• 1	
NCPM	NET SAMPLE ACTIVITY		RECOVERY	+	8	COUNT COUNT	JUN 1986 NU	

Sees no colors (Sees casa) proper a proper a proper de la proper de la properta del properta de la properta de la properta de la properta del properta de la properta del la properta del la properta de la properta de la properta de la properta de la properta de la properta de la properta de la properta de la properta del la properta de la properta del la properta de

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		CHEMISTRY	STRY	M		LANORATORY)#\
	18	D DATA		isiai	41.120	,	ATION
so APP TOKS, Waterton, CO	0253D Rec: 03-JUN-96	WT OR VOL	moor	WT ISUSI			
So the state of th	OUT OF THE	CHEMICAL		SEP		BASE	
AF Brooks AFR		SPIKE RHL NO.) Y	VOL SPIKE ADDED		DATE	8
M Bruch Greek 8thibu 2 des	Loaded by Fu	REMARKS		CHEM	Mary 18	COMP	₩
D COUNTING	64000	E RESULTS	ACTIVITY	UNITS	-	ACTIVITY + ER	ERROR UNITS
COUNTER AND EFF	۶	GROSS ALPHA DIS	<1.9 + MOA	PCIAL		• J	
TIME AND	100/13/360	GROSS ALPHA SUS	+ 1	PCI/L		+ 1	
TIME AND BKG CTS	. ~	GROSS ALPHA IURINE!	+ 1	PCI/24H		+ 1	
NET CPM		GROSS ALPHA	•	PCI/GD		+ L	
DATE AND TIME START	10 yeu 86	GROSS ALPHA	1	PCI/GA		+	
•		GROSS ALPHA (AIR FILTER)	+ 1	EM/ID4		+	
COUNTER AND EFF		GROSS BETA DIS	17.0 + 4.5	PCIIL		*	
TIME AND TOTICE		GROSS BETA	+ 1	PCIVL		• .	
TIME AND BKG CTS		GROSS BETA	+ 1	PCI/24H		+ -	
NET		NET BETA (URINE)	+ 1	PCI/24H		• 1	
DATE AND TIME START		GROSS BETA (SOIL)	+ 1	PCI/GD		*] .	
		GROSS BETA	+ 1	PCI/GA		+ 1	
RADON	CELL NO.	GROSS BETA (AIR FILTER)	+ 1	PCI/M 3		+ 1	T
DATE	TIME	SAMPLE WT DIS		MG/L		•	
TOTAL	UNCORRECTED SAMPLE ACT	SAMPLE WT		MB/L		• .	Τ
TOTAL	TIME COR FACTOR	SAMPLE VOL		¥		• 1	
GAOSS	COMPLETED SAMPLE ACT	SAMPLE VOL IAIR FILTERI		£3		+ 1	
BKG CPM	CONTROL ROOM ACTIVITY	SAMPLE W.T				+	
NCPM	NET SAMPLE ACTIVITY	MECOVERY	•	*	COUNT 12 JU	JUN 1986 12/17	70
WASHINGTON TO THE PROPERTY OF			22 221 521 5		SIGN.	WANTED STATES TO	SONE

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	/2			È) B		F/	\ 	3	<i>"</i>	//	"	"	"	,	"	\ 	<i>"</i>	<i>)</i>	\ 	1		 	-	
	LABORATORY IDENTIFICATION					ERROR																			8
	2 2 2 2 3 3 3 3 3 3	RHL	BASE CODE	DATE REC	DATE	• •	+ -	٠ ،	•	• •	+ 1	•	•	۰	- -	• •	• •	•	+ 1	+ 1	، [٠]		. .	1,1,	A8
222		αz	20			ACTIVITY	<43	792	462	412	2//>	413	7570	65	1	86 >	47	64	<i><47</i>	9/7			į		COUNT ? JUIL 1:190
X					186 BV		14-235	nh-1	15-W	1090			66	23	<u> </u>	12731	3		194-190	ch/-	l				9.0
رم.	13	(S)	<u></u>		CONP 6/5/86	NUCLIDE	11.5	//-	Chi	10	26		de	lui	Ĭ,	17	1	6.		77					NO CO
	W T IOISI	WT (SUS)	SEP	VOL SPIKE ADDED	38	UNITS	PCI/L	PCI/L	PC1/24H	05/124	PCI/GA	PCI/M3	PCIVL	PCIVL	PC1/24H	PC1/24H	PCI/GD	PCIIGA	PCI/M 3	MG/L	MG/L	¥	M3		,
E.4.5				Š V V V		ERROR																! !			\prod
N • •		8			IIA	1			•	• 1	 	•	+			 - -		+ -	+						
5.5.5		ome			GAMINA	† † <u> </u>	* ' 	* '	+ 1	† 1	, ,	1	,	,	, ,			, i	11						'
	CHEMISTRY DATA	89				S ACTIVITY	<	4	4	4	4	4						_							_
i de la companya de l	CHEN	WT OR VOL	CHEMICAL RECOVERY	SPIKE RHL NO.	REMARKS	RESULTS	GROSS ALPHA DIS	GROSS ALPHA SUS	GROSS ALPHA (URINE)	GROSS ALPHA	GROSS ALPHA	GROSS ALPHA IAIR FIL TERI	GROSS BETA DIS	GROSS BETA SUS	GROSS BETA	NET BETA (URINE)	GROSS BETA (SOIL)	GROSS BETA	GROSS BETA (AIR FILTER)	SAMPLE WT DIS	SAMPLE WT SUS	SAMPLE VOL	SAMPLE VOL	SAMPLE	RECOVERY
	8	\$ ₹	# E	S E	 	3 €	1	SO	es 5	R)	8 ≥	B €	85	8 3	55	¥5	£ 55	GR	GP (A)	SA	S SU	Ϋ́	S S	& ∝	ă.
	7.7	, ei %	3		-, ù	004219																			
\$3.5	18691077	0253D		WA EN	Lossed by	0								 											_
\$7.5°	18	0253D 0253D Ref: 07-1:8-94		⊈ `` 3	Loggi	べ														ΈŪ	UNCORRECTED SAMPLE ACT	30A	E ACT	CONTROL ROOM ACTIVITY	AWPLE
					-														CELL NO.	TIME	UNCO	TIME COR FACTOR	CORRECTED SAMPLE ACT	CONTI	NET SAMPLE
3.5		turton					<u> </u>				 														
38.83	្សា	1. 28 - X			<i>x</i> :	! 											:								
(3)	90 9	APP PJKJ, Waterton, Co	: : (GF.	Bruk Co. St.				ļ								ı	·							
33.	8 25	8 C. 2		4 HEGE Proofs AFE	Brush	COUNTING					TH.		_				aT								
6.	A	100	SUB•	AF8 H	ANA	D	COUNTER AND EFF	TIME AND	TIME AND BKG CTS	NET CPM	DATE AND TIME START		COUNTER AND EFF	TIME AND TOT CT	TIME AND BKG CTS	NET	DATE AND TIME START		RADON	DATE	TOTAL	TOTAL COUNTS	GROSS CPM	BKG CPM	NCLN
-	7	<u></u>							ـــــــا				L 43	33	·			l						<u></u>	

2 1		1	2	È	()%	-	<u> </u>	 					-					-				 -		\ 1. · :
C INFERTIFICATION	MHL NO	BASE COOE	DATE	DATE	FIRMON	+ 1			•	+	+ 1	• .	•	- -			- -		•	•	• 1	+ -		++ 7°
49.3 ma	0			<u> </u>	*ETWITY										-									COUNT TO JUN 19:
	_			18 mg/0/ 00	NUCLIDE																			COUNT
ISIOI	WT ISUSI	SEP	VOL SPIKE ADDED	CHEM	UNITS	אכור	PCI/L	PC1/24H	PCI/GD	PCI/GA	PCIVM3	PCIA	PCI/L	PC1/24H	PCI/24H	PCI/GD	PCI/GA	PCI/M 3	T/9#I	MG/L	¥	£ 3		*
:	June		> V	ALPistonia	ERROR	MOA						2,2												
	MOOC			ALPin	- -	+ +	- .	- ₋	٠ ٠	٠ ١	+ ,	7	- . 	- , 	- _'	- 	۱۰ ،	- -						-
DATA		 - 			S ACTIVITY	417		4	4	4	<	/0/												_
B DAT	WT OR VOL ANAL YZED	CHEMICAL	SPIKE RHL NO.	REMARKS	E RESULTS	GROSS ALPHA DIS	GROSS ALPHA SUS	GROSS ALPHA IURINE)	GROSS ALPHA	GROSS ALPHA	GROSS ALPHA (AIR FILTSR)	GROSS BETA DIS	GROSS BETA SUS	GROSS BETA	NET BETA (URINE)	GROSS BETA (SOIL)	GROSS BETA (VEG)	GROSS BETA (AIR FILTER)	SAMPLE WT DIS	SAMPLE WT SUS	SAMPLE VOL	SAMPLE VOL	SAMPLE	RECOVERY
	79	36	1		j		<u>.</u>					:		·										
ו נוב טעשעוב	1860197 0253D	Rec: 03-JUN-96	WATER				258	00		22										٥			M C	<u> </u>
			3;	Sector of Belling By	(-4000	∞)	18/101/1001		10 zv~86								CELL NO.	TIME STARTED	UNCORRECTED SAMPLE ACT	TIME COR	CORRECTED SAMPLE ACT	CONTROL ROOM ACTIVITY	NET SAMPLE ACTIVITY
	ruter, C			Ŋ			<u> </u>																	
E C	0006 5, Wooth	MAY-86		C skta					:															
	GN 86 0006 AFF PJ(65, Waterby, CO	Col: 21-MAY-86	4ABGF	L ceek	DNI							,		} 										
A	Soc Soc Soc Soc Soc Soc Soc Soc Soc Soc	Sugar Suga Sugar Suga Sugar Sugar Sugar Sugar Sugar Sugar Sugar Sugar Suga Sugar Sugar Sugar Sugar Sugar Suga S Sugar Sugar Sugar S Sugar	AF8 4	AND Bruch	D COUNTING	COUNTER AND EFF	TIME AND TOT CTS	TIME AND BKG CTS	NET	DATE AND TIME START		COUNTER AND EFF	TIME AND TOT CT	TIME AND BKG CTS	NET CPM	DATE AND TIME START		RADON	DATE	TOTAL TIME	TOTAL COUNTS	GROSS CPM	BKG CPM	NCPM

			CHEMISTRY	STRY		3		Ì	LABORATORY	
7. GN 85 0006	18	920	D DATA			(SIQ)			⊣	
APP POTKS, WASTELVEN, CO	0253F Rec: 03-11N-94	3.E	WT OR VOL	Coom		WT (SUS)			RHL NO	
			CHEMICAL RECOVERY			SEP			BASE	
Proofs AFB	WATER TX 78235		SPIKE RHL NO.		VOL ADD	VOL SPIKE ADDED			DATE REC	à
Bruk a. sh3	Logged by	2	REMARKS	GAMMA		CHEM	6/5/66	*	DATE	> 60
D COUNTING	1/3	66/8/00	E RESULTS	ACTIVITY +	ERROR	UNITS	NUCLIDE	ACTIVITY	FRROR -	UNITS
COUNTER AND EFF			GROSS ALPHA DIS	+ '		PCI/L	1-239	127	+	15./
TIME AND TOT CTS			GROSS ALPHA SUS	→ 1		PCI/L	oh-y	767	• 1	>
TIME AND BKG CTS			GROSS ALPHA (URINE)			PCII24H	15-21	8	+ 1	=
NET CPM			GROSS ALPHA			PCI/GD	09-9	//>	•	>
DATE AND TIME START			GROSS ALPHA (VEG)	+ ı		PCI/GA	28-95	16>	+ -	3
			GROSS ALPHA (AIR FILTER)	• ·		PCI/M3	28-40	97	• •	2
CH COUNTER AND EFF			GROSS BETA DIS	- ·		PCIIL	140-99	0057	•	>
TOT CT			GROSS BETA SUS	+ ·		PCIIL	64-103	8/	•	=
TIME AND BKG CTS			GROSS BETA IURINEI	+ 1		PCI/24H	14-105	1		=
NET CPM			NET BETA (URINE)	+ 1		PCI/24H	127			=
DATE AND TIME START			GROSS BETA ISOIL!	+ 1		PCI/GD	15134	87	•	15
			GROSS BETA (VEG)	+		PCI/GA	(5-13)	1	+ 1	=
RADON	CELL NO.		GROSS BETA IAIR FILTERI	+ 1		PCI/M 3	061-49	, ,	+ -	=
DATE	TIME		SAMPLE WT DIS			MG/L	14-190		• •	=
TOTAL	UNCORRECTED SAMPLE ACT		SAMPLE WT SUS			MG/L			+ 1	
TOTAL	TIME COR FACTOR		SAMPLE VOL IURINEI			¥			•	
GROSS	CORRECTED SAMPLE ACT		SAMPLE VOL IAIR FILTERI			K 33			• 1	
8KG CP4	CONTROL ROOM ACTIVITY		SAMPLE WT						•	
NCDA	NFT SANIME ACTIVITY		RECOVERY	•		,	COUNT : 1	1:1:1	IIV (Q)	

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A GN 86 0001	•	B DATA		(SIQ)	169,3mg	C IDENTIFICATION	
so App Potts, Waterlan, do	,	WT OR VOL	200m	WT (SUS)		WO.	
SUB 12 - 120 8US	rec: 03-JUN-85	CHEMICAL		SEP. TIME		BASE	
AFB 4 ABBO T	WATER TX 78235	SPIKE RHL NO.	ADD.	VOL SPIKE ADDED		DATE REC	¥
MY DFP BTKS MUSTY	Lossed by F.J.	REMARKS	ALL LINE DICKA		CHEM CASTO BY	DATE	94
D COUNTING	64000	E RESULTS	ACTIVITY + ENROR	UNITS	NUCLIDE ACT	ACTIVITY + ENROR	CNITS
COUNTER AND EFF	ŋ	GROSS ALPHA DIS	53.5 - 11.7	PCI/L		+ 1	
TIME AND	100/91/001	GROSS ALPHA SUS	+ 1	PCI/L		+ 1	
TIME AND BKG CTS	<i>></i>	GROSS ALPHA	+ 1	PCI/24H		+ 1	
CPM		GROSS ALPHA	+ 1	PCI/GD		+ 1	-
DATE AND TIME START	18 m 281	GROSS ALPHA (VEG)	+ -	PCI/GA		+	
		GROSS ALPHA (AIR FILTER)	+ 1	PCI/M ³		+ 1	
COUNTER AND EFF		GROSS BETA DIS	42.8 + 4.0	PCI/L		+ 1	
TIME AND		GROSS BETA SUS	+ 1	PCIL		+ 1	
TIME AND BKG CTS		GROSS BETA (URINE)	• •	PCI/24H		+ 1	
NET		NET BETA (URINE)	+ ,	PCI/24H		+ 1	
DATE AND TIME START		GROSS BETA (SOIL)	• 1	PC1/GD		+ 1	
		GROSS BETA (VEG)	+ 1	PCI/GA		+ 1	
RADON	CELL NO.	GROSS BETA (AIR FILTER)	+ 1	PCI/M 3		+ 1	
DATE	TIME	SAMPLE WT DIS		MQ/L		+ 1	
TOTAL	UNCORRECTED SAMPLE ACT	SAMPLE WT		MG/L		+ 1	
TOTAL	TIME COR FACTOR	SAMPLE VOL		ž		+ -	
GROSS CPM	COMPECTED BAMPLE ACT	BAMPLE VOL IAIR FILTERI		E 3		• 1	
PKQ C C PK	CONTROL ROOM ACTIVITY	BAMPLE				•	
NCM	NET SAMPLE ACTIVITY	RECOVERY	•	,	COUNT DR JUN 1986	1 1986 "PLITER	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
SE ESSENTESSET ESSE MES	amegoungelog auritelopomologidus	22.0	335 2 34 355 3	37.7	ASIQ REC	V	A WELL

		ſ	\vdash	YEA.		×		ľ	LABORATORY	
A GN B4 0001	18	1073	B DATA			(S)Q)			C IDENTIFICATION	
so ATP PITES, Waterton, CD	ر د د	0255P	WT OR VOL ANALYZED	DW 009		WT (SUS)		-	RHL NO	İ
Sur Col: 21-HAY-80	49 TO 1.33	Γ-	CHEMICAL RECOVERY		<u> </u> 	SEP			BASE CODE	-
AFB AABGP Brooks AFB	TX 28235	35	SPIKE RHL NO.		ADD	VOL SPIKE ADDED			DATE	<u></u>
D # 50 W ON	80 Casso 1		REMARKS	-GAIM		CHEM	6/8/2	£ €	DATE	BV
D COUNTING	6/1	h blehoo	E RESULTS	ACTIVITY +	ERROR	UNITS	NUCLIDE	ACTIVITY	+ ERROR	UNITS
COUNTER AND EFF			GROSS ALPHA DIS	+ 1		PCI/L	4-239	760	+	7.5
TIME AND			GROSS ALPHA SUS	+ 1		PCI/L	0h-X	86	- 85	>
TIME AND BKG CTS			GROSS ALPHA	+ 1		PC1/24H	(m-5/	7 44	+ 1	<u>-</u>
WEI			GROSS ALPHA ISOIL)	+ 1		PCI/GD	10-60	412	+ 1	۵
DATE AND TIME START			GROSS ALPHA	+ 1		PCI/GA	36-22	<117	+	1/
			GROSS ALPHA	 - 		PCI/M3	86-9N	87	+ 1	1
COUNTER AND EFF			GROSS BETA DIS	+ ,		PCIVE	10.59		•	1/
TIME AND TOT CT			GROSS BETA SUS	+ 1		PCIAL	Qu103	٤/	*),
TIME AND			GROSS BETA (URINE)	+ 1		PC1/24H	Ju-106		•	"
NET CPM			NET BETA IURINE!	- -		PCI/24H	1547	867	+ 1	٨
DATE AND TIME START			GROSS BETA ISOIL!	 •		PCI/GD	1813	23	•	J _j
			GROSS BETA (VEG)	+ 1		PCI/GA	(5-137	45	+ 1	ے
RADON	CELL NO.		GROSS BETA (AIR FILTER)	+ 1		PCI/M 3	131 740		•	·
DATE	TIME		SAMPLE WT DIS			MG/L	04-47	4	+),
TOTAL TIME	UNCORRECTED SAMPLE ACT		SAMPLE WT SUS			MG/L			•	
TOTAL COUNTS	TIME COR FACTOR		SAMPLE VOL			¥			•	
GROSS	CORRECTED SAMPLE ACT		SAMPLE VOL			M3			•	
9KG CPM	CONTROL ROOM ACTIVITY		SAMPLE W T						+	
NCPM	NET SAMPLE ACTIVITY		RECOVERY	+ -		\$	COUNT 1 2	JUN 1986	E # 3	

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A GN 86 0004	18	B DATA	ITRY	WT (DIS)	166. 3ma	C IDENTIFICATION	
SQ ATT (DRS, WAX CO. C. r>Rec: 03-JUN-86	WT OR VOL ANALYZED	Smood	WT ISUSI		NO.		
Sur AABGE		CHEMICAL		SEP		BASE	
AFE Brooks AFE		SPIKE RHL NO	0×	VOL SPIKE ADDED		DATE	Α
AN ATP POTES NW#5	Lossed by F.	REMARKS	ALI FILLE LE	CHEM	10 gr. 201	COMP) ED
D COUNTING	0.000	E MESULTS	ACTIVITY + ENROR	UNITS	NUCLIDE ACTIVITY	IVITY + ENROR	UNIT'.
COUNTER AND EFF	د	GROSS ALPHA DIS	10.6 - 6.4	PCI/L		+	
TIME AND TOT CTS	100/33/530	GROSS ALPHA SUS	+ 1	PCI/L		÷	
TIME AND BKG CTS		GROSS ALPHA	•	PCI/24H		+	
NET		GROSS ALPHA (SOIL)	+	PCI/GD		+ -	
DATE AND TIME START	18 Jul 86	GROSS ALPHA	+	PCI/GA		+	
		GROSS ALPHA (AIR FILTER)	+	PCI/M ³		+ 1	
COUNTER AND EFF		GROSS BETA DIS	31.4 - 3.5	PCIIL		+ 1	
TIME AND TOT CT		GROSS BETA SUS	+ 1	PCIIL		+ 1	
TIME AND BKG CTS		GROSS BETA (URINE)	+ 1	PCI/24H		+ 1	
NET		NET BETA (URINE)	+ 1	PC1/24H		+ 1	
DATE AND TIME START		GROSS BETA (SOIL)	+ 1	PCI/GD		+ 1	
		GROSS BETA (VEG)	+	PCIIGA		+ 1	
RADON	CELL NO.	GROSS BETA (AIR FILTER)	+ 1	PCI/M 3		+	
DATE COUNTED	TIME	SAMPLE WT DIS		MG/L		• 1	
TOTAL	UNCONNECTED SAMPLE ACT	SAMPLE WT		MG/L		+ 1	
TOTAL COUNTS	TIME COM FACTOR	SAMPLE VOL		ž		+ 1	
GROSS CPM	CORRECTED SAMPLE ACT	SAMPLE VOL		£3		+ 1	
BKG CPM	CONTROL ROOM ACTIVITY	SAMPLE				+ 1	
NCPM	NET SAMPLE ACTIVITY	RECOVERY	+ 1	*	COUNT 12 JUN	JUN 19RE PACTE	~ 5
響/80 F/S/38 概念Cot KASA mASA	and of Sauntified and Siften and Saute		\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1 CS 2		1層	A K

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	; (!		10401074	B CHEMISTRY	Y 8 -		isio:		-	COENT	IDENTIFICATION	
	13 €		0253t	WT OR VOL ANALYZED	Gar, me		WT (SUS)			RHL		
	SUBA [51] 21-MAY-96	Kec: us-Justas	001	CHEMICAL RECOVERY			SEP	v		BASE CODE		
	AFB Proofs AFB	WATER IX 78235		SPIKE RHL NO.		ADD	VOL SPIKE ADDED			DATE REC		. 69 ≺
	ANAL THE MES # S	Lossed		REMARKS	GAMMA		CHEM	45/66	چ کر	DATE COMP		9.4
-	D COUNTING	٦//	0042197	E RESULTS	ACTIVITY +	ERROR	UNITS	NUCLIDE	ACTIVITY	. .	ERROR	UNITS
	COUNTER AND EFF			GROSS ALPHA DIS	+ 1		PCI/L	1235	733	- -		87
	TIME AND TOT CTS			GROSS ALPHA SUS	+ 1		PCI/L	14-40	567	•		`-
	TIME AND BKG CTS			GROSS ALPHA IURINEI	+ .		PCI/24H	(z-51	439	• 1		*
	NET CPM			GROSS ALPHA	+ 1		PCI/GD	6-60	//>	+		
	DATE AND TIME START			GROSS ALPHA	+ 1		PCI/GA	32-95	216	+ 1	-	2,
L 4				GROSS ALPHA (AIR FILTER)	+		PCI/M ³	25 90	49	+)/
39	COUNTER AND EFF			GROSS BETA DIS	- ₁		PCIAL	99-99		'		//
	TIME AND			GROSS BETA SUS	+ 1		PCI/L	Ru-103		• .		11
	TIME AND BKG CTS			GROSS BETA (URINE)	+ 1		PC1/24H	Ja-106	١ ٧	+ .		2
	NET CPM			NET BETA (URINE)	+		PC1/24H	1421	727	• 1		,,
	DATE AND TIME START			GROSS BETA	+ 1		PCI/GD	181.5)	87	• •		-
				GROSS BETA (VEG)	+ 1		PCI/GA	181187	V	•		
	RADON	CELL NO.		GROSS BETA (AIR FILTER)	+ 1		PCI/M 3	ST 2 OUT AND	527	+		,,,
	DATE	TIME		SAMPLE WT DIS			MG/L	041-47	36	₹ ·		2)
	TOTAL .	UNCORRECTED SAMPLE ACT		SAMPLE WT SUS			MG/L	•		•		
	TOTAL	TIME COR FACTOR		SAMPLE VOL			¥			• ,		:
	GPOSS	CORRECTED SAMPLE ACT		SAMPLE VOL IAIR FIL TERI			€3			• •		
	BKG CPW	CONTROL ROOM ACTIVITY		SAMPLE W.T						,		
	NCFW	NET SAMPLE ACTIVITY		RECOVERY	+ '		,	COUNT 1 5	JUN 1956	38	B	İ
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				5,	ارق ا		
	1 TVDE CANDIE	B CHEMISTRY	STRY	W.T (DIS)	16.320c	C IDENTIFICATION	
APP POTES, Waterton, Co		WT OR VOL ANALYZED	Smoot	WT (SUS)	0	/	
- Col: 21-MAY-86	Rec: 03-JUN-96	CHEMICAL		SEP. TIME		BASE	
Frooks AFR	WATER TX 78235	SPIKE RHL NO.	J :	VOL SPIKE		DATE	à
AFP FORS MWA6	(wotch bank clar & conty	REMARKS	ALPINELLE . C.	CHEM 19617	18 2 Ming	DATE	B .
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APPENDIX M
RESPONSES TO REGULATORY COMMENTS

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AFP PJKS DRAFT PHASE II REPORT COMMENTS FROM REGULATORY AGENCIES

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U.S. Environmental Protection Agency (Ref. 8HWM-SR; letter dated 19 August 1986)

Comments

. Detection limits.

The detection limits for some critical chemical analyses were very high. We believe that this is a serious weakness in this investigation and severely limits the usefulness of the results. The detection limit for hydrazine in water, for instance, was I part per million (ppm) and for TCE in soils, 2 ppm. These high detection limits probably explain why there were no positive results for these two contaminants in those media.

Response

1. Detection limits.

Detection limits are determined by the specific method of analysis and represent limits that can be reached by a laboratory. We agree that the limit for hydrazine (1 ppm) and TCE (2 ppm) may be a little high. However, matrix effects normally raise the limits of detection.

An EPA method for analysis of hydrazine does not exist. Therefore, a NIOSH method was modified for this analysis. Theoretically, a detection limit of 0.1 mg/L (ppm) can be achieved. Ultimately, the analytical laboratory must determine the detection limit. If you have an approved method for analyzing hydrazine which has a lower detection limit, we would greatly appreciate a reference to it. However, even with a lower detection limit, we would doubt hydrazine could be detected due to the lability of the compound.

EPA Method (8010) specifies a sensitivity of 1 mg/kg (ppm) to be achieved. By back calculating from the detection limit for TCE in water samples, we can get a theoretical detection limit of 0.06 mg/kg for TCE in soil samples. This represents a detection of 0.0006 ug of TCE by the GC, using the protocols specified by EPA Method 3050/8010. We do not know if a detection limit below I mg/kg can be achieved. In the next stage of investigation we can specify a detection limit of at least 0.1 mg/kg. However, the laboratory will have to determine the achievable detection limits based on the soil matrix of the samples.

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APP PJKS DRAFT PHASE II REPORT COMMENTS FROM REGULATORY AGENCIES (Continued)

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U.S. Environmental Protection Agency (Ref. 8HWM-SR; letter dated 19 August 1986) (Continued)

Comments

2. Analytical Techniques.

Although the dual column gas chromatograph (GC) can provide good analytical results, EPA prefers techniques that use both the gas chromatograph and mass spectrometer (GC/MS). We believe that the GC/MS provides better identification of chemical constituents and GC/MS methods are used by EPA contract laboratories for hazardous materials analysis.

Response

2. Analytical Techniques.

We agree that GC/MS is more desirable for positive identification of compounds. However, the detection limits for GC/MS analyses are about 10 times higher than for GC with second column confirmation. For example, the method for EPA Contract Laboratory Program (CLP) specifies detection limits for 5 to 10 ug/L for many volatile organic compounds. We are concerned with the proposed drinking water standards. The proposed Maximum Contaminant Level (MCL) for TCE is 5 ug/L. The CLP method has a detection limit of 5 ug/L which is at the MCL. Worst, the proposed MCL for vinyl chloride is 1 ug/L and the detection limit with GC/MS is 5 ug/L.

this type of method. If not, we would still like to use this type of method. If not, we would still like to use GC/MS to analyze all future water samples from past sites with high amounts of organic compound contamination (at least above detection limit of GC/MS) and where previous water samples were analyzed by GC with second column confirmation. This would allow us to eliminate any doubts of the identity of the compounds. In addition, we would like to use GC/MS for all soil samples since there are no standards for soil samples other than EP Toxicity.

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AFP PJKS DRAFT PHASE II REPORT COMMENTS FROM REGULATORY AGENCIES (Continued)

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U.S. Environmental Protection Agency

(Ref. 8HWM-SR; letter dated 19 August 1986) (Continued)

Comments

3. Interpretation of Soil Data.

The use of the EPA publication, "Hazardous Waste Land treatment," is inappropriate for evaluating the soil sample results at PJKS. That publication includes recommendations for managing hazardous waste treatment facilities and the guidelines for contaminant accumulation in soils are not meant to evaluate ambient conditions.

4. Conclusions and Recommendations.

We generally agree with the conclusions and recommendations listed in Sections 5 and 6 of the Report. The ground water contamination that has been identified should be examined more thoroughly and the sources should be located. The resampling discussed on page 6-3 is a good idea as long as the detection limits are lowered to provide more useful data. We would like to work with the Air Force in developing the work plan for the tasks suggested in Section 6.

Response

3. Interpretation of Soil Data.

We are not aware of any standards for solls except for EP Toxicity. If available, please provide appropriate publications or references to publications that we can use for evaluating our results.

We are planning to analyze and use background samples for comparison in the next stage of investigation.

4. Conclusions and Recommendations.

We would like the EPA and Colorado Department of Health to review the draft IRP II-2 Statement of Work. Comments from these agencies will be incorporated into the final Statement of Work.

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APP PJKS DRAFT PHASE II REPORT COMMENTS FROM REGULATORY AGENCIES (Continued)

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(Comments by G. Starkebaum, 22 August 1986, Colorado Department of Health Telephone Memo)

Comments

Response

Concrete Pond (T8-A).

Concrete Pond (T8-A).

The State does not consider this through the review of Martin-Marietta's (M-M) Part B pond as a RCRA impoundment subject to RCRA closure. Colorado Department of Health still considers this Closure process has to be worked out by the State permit application. issue a serious one.

None.

Samples Proposed for soil and water EPL Rinse Water 2.

Tanks (Located right below T-6033 tanks).

Samples Proposed for soil and water EPL Rinse Water

2

Tanks (Located right below T6033 tanks)

None.

area which indicated a prominent presence of heavy The State took a sample on 15 March 1985 in this metals as follows:

- This area was made part of the Consent Order which ground. This pipe has since been plugged by M-M. required M-M to include this area in the Closure Plan. This issue needs to be coordinated by M-M Sample was taken from a pipe discharging on the between its RCRA and IRP activities:
- Arsenic found at 1.2 ppm (total digestion of 1-gram sample dissolved in nitric acid) 2a(1)
 - · Total chromium found at 5.1 ppm - barfum found at 21 ppm
 - lead found at 13 ppm 2a(3) 2a(4)
- mercury found in 0.2 ppm. 2a(5)
- Draft Report is considered a good one by the State. 3.

None. 3.

2

D C

F)

